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# File 'testcodes_list'
# This copy has been reconciled with the GTSPP database as of this date:
>LIST_UPDATE: Sep 02 2004 22:48:05 (20040902224805)
# Last hand editing of this file: Sep 02 2004 22:43
#
# This file is required for the operation of 'testcodes.pl';
# When the GTSPP database is available, only the first group of
# "authoritative" codes will be used, and all others will be retrieved
# from the database using the SQL specified in this file.
#
# When the command line flag '-n' is given, only the codes in this file
# will be used.  In this way, the program can be used in environments
# where the database is not available.
#
#
# CODES NOT IN DATABASE -- THIS LIST IS AUTHORITATIVE (specific field tested):
# 'AVAIL'  Data availability        (Data_Avail)
# 'DIGMC'  Digitization Method Code (Digit_Code)
# 'DP'     Depth / Pressure code    (D_P_Code)
# 'DUP'    Parameter Duplicate flag (Dup_flag)
# 'UFLAG'  Record update code       (Uflag)
#
# ALL REMAINING CODES ARE UPDATED FROM DATABASE
# Codes for specific fields:
# 'ACT'    Parameter action code (Act_Code)
# 'IDENT'  Organization code for creation of the record
#          (Ident_Code, Stream_Ident_a = bytes 1-2)
# 'PRC'    Processing step (PRC_Code)
# 'QUAL'   GTSPP Data quality codes
#          (qPos, qDateTime, qRecord, profQparm, qParm, srfcQparm)
# 'TYPE'   Data type
#          (dataType, Stream_Ident_b = bytes 3-4)
#
# Parameter Codes (GF3 or user codes)
# 'PC_group' includes the following:
#    PC_PROF: Profile Parameter type codes; Use to test:
#      Prof_Type    in prof_info group
#      Profile_Type in Profile Record
#      Act_Parm     in history group
#    PC_HIST: Action Parameter codes (eg, RCRD); Use to test:
#      Act_Parm     in history group
#    PC_PARM: Surface Parameter codes; Use to test:
#      Pcode        in surface parameter group
#      Act_Parm     in history group
#    PC_CODE: Surface Code codes; use to test:
#      srfc_Code    in surface code group
#      Act_Parm     in history group
#
# Codes dependent on other parameters
#   'STD_xxxx = Observation Standard codes for specific profile parameters
#   Includes (as of 6/1/2004) the following:
#     'STD_ALKY', 'STD_CALK', 'STD_COND', 'STD_CORG', 'STD_CPHL', 'STD_DOXY',
#     'STD_FLO1', 'STD_HCDT', 'STD_HCSP', 'STD_NH3$', 'STD_NTRA', 'STD_NTRI',
#     'STD_PH1$', 'STD_PHOS', 'STD_PHPH', 'STD_POC_', 'STD_PRP$', 'STD_PSAL',
#     'STD_SLCA', 'STD_SSAL', 'STD_SUL$', 'STD_SVEL', 'STD_TEMP', 'STD_TPHS',
#     'STD_TRAN', 'STD_USAL'
#
#   'SC_xxxx' = Surface Code group parameter (code) values for
#   specific surface parameters or surface codes;
#   Includes (as of 8/28/2004) the following surface parameters:
#     'SC_BCI$', 'SC_GGCM'
#   Includes (as of 8/28/2004) the following surface codes:
#     'SC_ANT$', 'SC_BQA$', 'SC_BQZ$', 'SC_BTP$', 'SC_CLDA', 'SC_CLDT',
#     'SC_DPC$', 'SC_GGST', 'SC_MRT#', 'SC_PEQ$', 'SC_PRT$', 'SC_RCT#',
#     'SC_RCT$', 'SC_SEAS', 'SC_STAT', 'SC_VDIC', 'SC_VIS#', 'SC_VISB',
#     'SC_VISC', 'SC_VSB#', 'SC_WCL$', 'SC_WCLR', 'SC_WDC$', 'SC_WDIC',
#     'SC_WDR#', 'SC_WFBS', 'SC_WSC$', 'SC_WVH#', 'SC_WVH$', 'SC_WVP#',
#     'SC_WVP$', 'SC_WVR#', 'SC_WWC#', 'SC_WWCD', 'SC_XDIN', 'SC_XDMT',
#     'SC_XTRS',
#
#
# Conventions in this code list:
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# Lines starting with "#" are comments, and will be ignored.
# Blank lines will also be ignored.
# Fields:  A|B|C|D|E  (C, D and E optional as explained below)
# When field A is ">TABLE":
#   This line starts a set of lines for a new table.
#   B is the table name as used in the program;
#   C is the table definition (for your information only -- not read).
# When field A is ">FIELD":
#   B is the name of the field or fields to be tested
#     against this table (for your information only).
# When field A is ">SQL":
#   B is an SQL statement to be used to query the database;
#     use the query results instead of the following data lines.
# When field A does not start with ">":
#   A is the code;
#   B is the definition of the code.
#
# When field A is ">BEGIN"
#   This line begins a group of table definitions
#   B is a template for the table name in the program, eg, 'STD_xxxx'
#     where 'xxxx' is to be replaced by a Pcode.
#   C is the field to be tested
#   D is the field that must = 'xxxx'
#   E is the definition of the GROUP of tables
# When field A is ">END"
#   This line ends a group of table definitions
#   B is the same as B above (informational only)
#
#
# The code tables in the following group are not likely to change, so
# this listing, to be kept as part of the testcodes program, can be
# considered to be authoritative.
# AVAIL, DIGMC, DP, DUP, UFLAG
#
#
>TABLE|AVAIL|Data availability (Data_Avail)
>FIELD|Data_Avail
A|Available
P|Protected
#
>TABLE|DIGMC|Digitization Method Code (Digit_Code)
>FIELD|Digit_Code
0|Unknown
1|Hand digitized at regular intervals of depth
2|Hand digitized at inflection points
3|Analog reading by one operator
4|Analog reading by two operators
5|Digital reading
6|Machine digitized at regular intervals of depth
7|Digitized at regular depth intervals (equivalent to k1=7 for BATHY/TESAC data)
8|Digitized at inflexion points (equivalent to k1=8 for BATHY/TESAC data)
9|Analog record on tape ditized by computer
A|Digital data logger and reduced to regular intervals of depth
B|Digital data logger and reduced under the limit of the instrument
C|Digital data logger and reduced at or better than the limit of the instrument
D|Digital data logger and unreduced
E|Digital data logger, up trace
F|Digital data logger, down trace
G|Digital data logger, direction unknown
#
>TABLE|DP|Depth / Pressure code (D_P_Code)
>FIELD|D_P_Code
D|Independent parameter is Depth
P|Independent parameter is Pressure
#
#
>TABLE|DUP|Parameter Duplicate flag (Dup_flag)
>FIELD|Dup_flag
 |Parameter is not a duplicate
D|Parameter is a duplicate
N|Parameter is not a duplicate
Y|Parameter is a duplicate
#
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#
>TABLE|UFLAG|Record update code (Uflag)
>FIELD|Uflag
D|Delete this station from the file
R|Replace existing station with this one
S|Skip this station during update
U|Add this station to file during update
#
#
#
# The following code tables are extensible, and should be
# read from the database tables.  The values here will
# be used only if the database is unavailable.
# ACT, IDENT, PRC, QUAL, TYPE
#
#
>TABLE|ACT|Parameter action code (Act_Code)
>FIELD|Act_Code
>SQL|SELECT code, descript FROM gtspp.actcode_descript ORDER BY code
AC|Assign a new cruise number
BB|Bad Bottle data, CSIRO Code (CSCB)
BD|Bathy data which is rejected, CSIRO Code (CSCB)
BO|Bowing Problem or Bowed Mixed layer. This is an apparently inconsistent temperature measu
CF|Change a quality flag
CL|Contact Lost (Probe records before entering water), CSIRO Code (CSCB)
CR|Create record
CS|Surface Spike, caused by a minor start-up transient problem that leads to inaccurate temp
CT|Constant temperature, hit bottom.The temperature profile exhibits constant temperature wh
CU|Cusping. Bathy Systems Leakage or cusping is a malfunction particular to early versions c
CV|Change value
DA|Delete Top of a profile. From top of a profile to a depth specified in the HISTORY GROUP.
DB|Delete Bottom of a profile. From a depth specified in the HISTORY GROUP to end of the pro
DC|Station was checked by duplicate checking software
DE|Depth Error, CSIRO Code (CSCB)
DL|Delete interval in a profile. Between 2 values specified in the HISTORY GROUP to end of t
DP|Duplicate Drop, CSIRO Code (CSCB)
DR|Driver Error, The Sippican MK-9 timing delay problem, is an error in the recognition of t
DU|Duplicate Drop, CSIRO Code (CSCB)
ED|Edit a parameter value
EF|Eddy / Front / Current. Eddies, oceanic fronts and currents are common meso scale feature
ER|Early Recording error
FB|Flag to the Bottom
FR|Flag Range
FS|Fine structure error: leakage, PET fault, cusping, sticking bit. The temperature profile
GL|Gradient Long (inversion as opposed to spike)
GS|Gradient Short (spike)
HB|Hit Bottom. When the probe hits the bottom, the temperature trace usually goes isothermal
HF|High Frequency Interference. As for spikes, high frequency interference is caused by elec
IP|This history group operates on the complete input record
IV|Inversion. Confirmed increase in temperature with depth observed at some point in the pro
LE|Leakage. Appears as apparent structure of "jitter" over a range of depths (or the entire
MB|MBT data rejected, CSIRO Code (CSCB)
ML|Mixed layer error: bowing. The temperature profile exhibits erroneous features (such as f
MO|Modulo 10 spikes. It is a data acquisition software problem associated with early versior
MS|Meso-scale feature, CSIRO Code (CSCB)
NG|No good trace
NT|No Trace. There is either no profile data recorded or the data is completely off-scale. T
NU|Inversion in Mixed Layer Confirmed. A nub is a special type of inversion in which an incr
OE|Other error. SIO Code (SIPE)
PE|Position error. Profile position has been erroneously encoded. Corrected if possible.
PF|Pet Fault. The PROTECNO Systems Leakage is a problem specific to the PROTECNO recorder/pr
PI|Inversion Probable. A probable inversion is defined as an increase in temperature with de
PS|Fine Structure (Step-Like) Probable. Appears as unconfirmed isothermal or step-like featu
QC|Quality Control
RD|The profile has gone through a reduction procedure.
RE|Repeat Drop. Is defined as an XBT deployed within 15 minutes of another one due to suspec
RF|Reformat
SA|Surface Anomaly. The surface anomaly is a special case of fine structure that is limited
SF|Surface feature error: surface anomaly, chopped surface value. The temperature exhibits e
SP|Spike. Isolated or intermittent spikes can be the result of external electrical or electr
ST|Fine Structure (Step-Like) Confirmed. Step-like features or small interleaving observed i
SV|Set a value
TA|Temperature anomaly that might be bad data but we decided to accept it for now. CSIRO Coc
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TD|Temperature Difference, A difference in temperature at depth is observed when compared to
TE|Time error. Profile date/time has been erroneously encoded. Corrected if possible.
TG|Temperature gradient error:insulation penetration, spikes, high frequency noise, wire bre
TI|Temperature inversion error: wire stretch. The temperature profile exhibits erroneous tem
TO|Temperature/depth offset. The temperature profile exhibits erroneous temperature/depth of
TP|Test Probe, and devices are frequently used for testing or calibrating XBT systems. CSIRO
UP|Station passed through the update program
UR|Under resolved. Temperature data is encoded at standard depths/levels and can"t be used t
WB|Wire Break. The XBT wire breaks, a short circuit causes the temperature readings to go of
WS|Wire Stretch. A true wire stretch causes an abnormal increase of temperature with depth (
#
#
>TABLE|IDENT|Organization code for the organization which created the record
>FIELD|Ident_Code Stream_Ident_a
>SQL|SELECT id, descript FROM gtspp.streamident_descript ORDER BY id
AD|Australian Oceanographic Data Centre
AO|Atlantic Oceanographic and Meteorological Lab
BI|BIO Bedford institute of Oceanography
CF|Canadian Navy
CS|CSIRO in Australia
DA|Dalhousie University
FN|FNOC in Monterey, California
FR|Orstom, Brest
FW|Fresh Water Institute (Winnipeg)
GE|BSH, Germany
IC|ICES
II|IIP
IK|Institut fur Meereskunde, Kiel
IM|IML
IO|IOS in Pat Bay, BC
JA|Japanese Meteorologocal Agency
JF|Japan Fisheries Agency
ME|MEDS
MO|Moncton
MU|Memorial University
NA|NAFC
NO|NODC (Washington)
NW|US National Weather Service
OD|Old Dominion Univ, USA
RU|Russian Federation
SA|St Andrews
SI|Scripps Institute of Oceanography
SO|Southampton Oceanographic Centre, UK
TC|TOGA Subsurface Data Centre (France)
TI|Tiberon lab US
UB|University of BC
UQ|University of Quebec at Rimouski
VL|Far Eastern Regional Hydromet. Res. Inst. of V
WH|Woods Hole
#
#
>TABLE|PRC|Processing step (PRC_Code)
>FIELD|PRC_Code
>SQL|SELECT code, descript from gtspp.prccode_descript ORDER BY code
ARDP|Check Argo duplicates between TESAC and Argo archives
ARGQ|Automatic QC software for Argo floats
ARUP|Update Argo data to Argo archive
BIOC|Convert new BIO r-t format to ocean processing
BISC|Conversion of WOCE XBT"s at Bedford Institute to MEDS ocean processing format.
BIXB|Conversion of BIO XBT data to ocean processing format
BIXC|Conversion of Skogafoss format to ocean processing
BOCV|Conversion of BIO Bottle data to ocean processing
BTCV|The software converts MEDS hand digitized BTs to ocean processing format
BTE1|Convert drifters with subsurface profiles from drifting buoy stream to TESAC stream.
BTE2|Convert drifters with subsurface profiles from TESAC stream to drifting buoy stream.
BU01|MEDS software that reads IGOSS data in BUFR and convert to the Ocean processing format.
BUCV|Convert GTS drifting buoy messages to Ocean processing format.
BUQC|Drifting Buoy QC software.
CFCV|Convert Canadian Navy DBT data
CSCB|CSIRO QC Cook Book Software
CTC2|Software to convert IML CTD"s in ODF format to ocean processing.
CTCV|Software converts format from high resolution CTD tape format to ocean processing forma
DDDD|Resolve duplications within a single satellite pass in the drifting buoy system.
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DM01|NODC converter of NODC UBT format to MEDS format
DM02|NODC converter of NODC Station Data format to MEDS format
DM03|NODC converter of NODC IBT format to MEDS format
DM04|NODC converter of Navy Declassified IBT format to MEDS format
DMAC|Assign a MEDS cruise number to the stations
FXCV|NODCfix program. Corrects obsmon and obsday where first character is blank and adds a 0
FXOB|NODC Sybase SQL procedure to fix the time of ObsEpoch where it differs from the dateStr
IG02|MEDS software that converts the real-time IGOSS data to the new Ocean processing struct
IG03|MEDS duplicates checking software.
IG04|The duplicates review software.
IG05|The quality control software which checks ocean profiles.
IG06|MEDS program to convert Bulletin times
IGO3|NODC duplicates checking software.
IMCV|Convert IML CTD to ocean processing
IOC1|Convert IOS header/data format to ocean processing
JP01|MEDS convert Japanese JHD data to MEDS format
MNCV|MEDS reformat program MONCTON CTD CONV
NACV|Convert NAFC digital BT to ocean processing
OCUP|Update the Archive
QCA1|The quality control software which checks that the space and time location as well as t
QCAD|NODC Delayed mode version of QCA1.
QCR1|AOML XBT QC Software
RED1|Software to reduce the number of observations in a profile.
RFMT|Reformat PINRO data to ocean processing
SIPE|SCRIPPS QC software
SIPP|SCRIPPS QC Post-Processing software (Date of processing)
SQL |NODC procedures to fix various database problems using Sybase SQL
SQLP|NODC procedures to fix various database problems using SQL
TCTE|IFREMER/TOGA Subsurface Data Center Duplicates software
TCXX|IFREMER/TOGA Subsurface Data Center QC software
TIHI|Set a time, add a history when no time is provided with data
TSDC|IFREMER/TOGA Subsurface Data Center QC software
UBCV|Convert UBC scanned data to ocean processing
WHC1|Convert WHOI bottle data to ocean processing
WHCV|Convert Woods Hole BT data to ocean processing
WOCB|WOCE QC Cook Book Codes (CSIRO)
XBCV|Software to convert BIO XBT"s in ODF format to ocean processing.
XED1|AOML XBT Edit software
cv01|NODC convert CSIRO MEDSASCII to GTSPP MEDSASCII format
cv02|NODC convert IFREMER MEDSASCII to GTSPP MEDSASCII format
cv03|NODC Convert MEDS MEDSASCII to GTSPP MEDSASCII format
cv06|NODC Convert SEAS to MEDSASCII
cv07|NODC Convert OCL-WOD (World Ocean Database) to GTSPP MEDSASCII format
cvs2|NODC Convert SEAS2000 format to MEDSASCII
dupc|NODC duplicate software
edes|NODC Exact duplicate Exclusion Scanner, reads MEDS-ASCII file, scans database, eliminat
edup|NODC exact duplicate control
fxdm|NODC fix program. Inserts an accession number, fixes NODC PLAT codes, and fixes the pro
gced|NODC GTSPP Quality Control Cruise Track Software
gdpZ|NODC GTSPP software to remove duplicate stations found in an input file or in the datab
gt01|NODC converter of SEAS III XBT format to GTSPP format
gt02|NODC converter of TSDC1 XBT format to GTSPP format
gt03|NODC converter of SEAS II XBT format to GTSPP format
gt04|NODC converter of CEADO XBT format to GTSPP format
gt05|NODC converter of TSDC2 XBT format to GTSPP format
gt06|NODC converter of CSIRO TOGA XBT format to GTSPP format
gt07|NODC converter of NODC UBT format to GTSPP format
gt08|NODC converter of TAMU XBT (1-labelled fields) format to GTSPP format
gt09|NODC converter of TAMU XBT (2-columnar fields) format to GTSPP format
gt11|NODC converter of JODC XBT format to GTSPP format
gt12|NODC converter of AODC XBT format to GTSPP format
gt13|NODC converter of AODC XBT (2-RV Franklin) format to GTSPP format
gt14|NODC converter of NODC CTD/STD (F022) format to GTSPP format
gt15|NODC converter of TAMU CTD (1-labelled fields) format to GTSPP format
gt19|NODC converter of NODC Station (SD1) format to GTSPP format
gt23|NODC converter of CSIRO meds format to GTSPP format
ides|NODC Inexact Duplicate Examination System, Perl and IDL system to find and allow operat
isql|NODC program re-set QC temp flags from "2" to "1" if failed Levitus Climatology
ld00|NODC transfer of data from Sybase to Oracle database
ld01|NODC database loading program
ld02|NODC update of data from SIO with scientific QC
ld03|NODC update of data from CSIRO with scientific QC
ld04|NODC update of data from AOML with scientific QC

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ld05|NODC program to fix database mismatch problem
ld06|NODC program to fix erroneous qRecord values
ld07|NODC program to fix XBT depth corrected and original values
ld08|NODC program to build DPC$ for all stations with datatype = XB, BA, or DT
p101|NODC converter of Bundesamtes fur Seeschiffahrt und Hydrographie (BSH) to GTSPP format
p2Dp|NODC Duplicates software
p2Ws|Convert NODC nodcDB format to GTSPP format
p3Ws|Convert NODC OPDB format to GTSPP format
plat|NODC update of PLAT surface code information
qcPr|NODC GTSPP QC Profiles software
qced|NODC Quality Control Editor IDL program
sumQ|NODC software which checks to see if data quality code is present
tstc|NODC test of codes in a MEDS-ASCII file
tstm|NODC format test of a MEDS-ASCII data file
wscf|NODC update software to build WOCE Science Center flags in database
#
#
>TABLE|QUAL|GTSPP Data quality codes
>FIELD|Q_Pos Q_Date_Time Q_Date_Time Q_Record SRFC_Q_Parm Depres_Q Prof_Q_Parm
>SQL|SELECT code, descript FROM gtspp.q_value_codes_descript ORDER BY code
0|No quality control (QC) has been performed on this element.
1|QC has been performed; element appears to be correct.
2|QC has been performed; element appears to be inconsistent with other elements.
3|QC has been performed; element appears to be doubtful.
4|QC has been performed; element appears to be erroneous.
5|The value has been changed as a result of QC.
6|Reserved.
7|Reserved.
8|QC has been performed by the originator.
9|The value of the element is missing.
#
#
>TABLE|TYPE|datatype field, and Bytes 3-4 of Stream_Ident give data type
>FIELD|datatype Stream_Ident_b
>SQL|SELECT code, descript FROM gtspp.datatype_descript ORDER BY code
AR|Animal mounted recorder
BA|BATHY message
BF|Undulating Oceanographic Recorder (e.g. Batfish CTD)
BO|Bottle
BT|general BT data
CD|CTD down trace
CT|CTD data, up or down
CU|CTD up trace
DB|Drifting buoy
DD|Delayed mode drifting buoy data
DM|Delayed mode version from originator
DT|Digital BT
IC|Ice core
ID|Interpolated drifting buoy data
IN|Ship intake samples
MB|MBT
MC|CTD and bottle data are mixed for the station
MI|Data from a mixed set of instruments
ML|Minilog
OF|Real-time oxygen and fluorescence
PF|Profiling float
RM|Radio message
RQ|Radio message with scientific QC
SC|Sediment core
SG|Thermosalinograph data
ST|STD data
SV|Sound velocity probe
TE|TESAC message
TG|Thermograph data
TK|TRACKOB message
TO|Towed CTD
TR|Thermistor chain
XB|XBT
XC|Expendable CTD
#
#
# The PCODES and GF3 codes are separated into 4 groups:
# 1) PC_PROF: Profile Parameter type codes; Use to test:
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#      Prof_Type    in prof_info group
#      Profile_Type in Profile Record
#      Act_Parm     in history group
# 2) PC_HIST: Action Parameter codes (eg, RCRD); Use to test:
#      Act_Parm     in history group
# 3) PC_PARM: Surface Parameter codes; Use to test:
#      Pcode        in surface parameter group
#      Act_Parm     in history group
# 4) PC_CODE: Surface Code codes; use to test:
#      srfc_Code    in surface code group
#      Act_Parm     in history group
#
#
>TABLE|PC_PROF|profile type parameter codes (pCode)
>FIELD|profType profileType actParm
>SQL|SELECT code, descript FROM gtspp.pcode_descript WHERE tableid = 'nprofs' ORDER BY code
ALKY|TOTAL ALKALINITY
AMON|AMMONIUM (NH4-N) CONTENT
CALK|CARBONATE ALKALINITY
COND|(Conductivity)   Data from CSIRO
CORG|ORGANIC CARBON CONTENT
CPH$|Chlorophyll-a content  determined by the Welchmeyer method
CPHL|CHLOROPHYLL-A
DOXY|DISSOLVED OXYGEN
F11$|CFC11 measurements
F12$|CFC12 measurements
FLO1|Flouride
FLU1|Florescence
FLU2|Fluorescence
HCDT|DIRECTION TO WHICH HORIZONTAL CURRENT IS FLOWING (relative to True North) degrees
HCSP|HORIZONTAL CURRENT SPEED
NH3$|NH3-N
NTRA|NITRATE (NO3-N) CONTENT
NTRI|NITRITE (N02-N) CONTENT
NTRZ|NITRATE   NITRITE CONTENT
OSI$|Originator"s sample identifier
PAR$|Irradiance (Photosynthetic Active Radiation (PAR))
PAR1|Irradiance (Photosynthetic Active Radiation (PAR))
PH1$|Replicate sample of inorganic phosphate
PHA$|Phaeophytin content (pigment in algae)
PHOS|PHOSPHATE (P04-P) CONTENT
PHPH|HYDROGEN ION CONCENTRATION (pH)
PLT$|Light transmittance (%/m = percent/meter)
POC_|Particulate Organic Carbon content
PRES|Sea pressure (sea surface = 0) in decibars
PRP$|Primary productivity
PSAL|Salinity
SLCA|SILICATE(SIO4-SI) CONTENT
SSAL|SALINITY (PRE-1978 DEFINITION)
SUL$|Sulphate (SO4)
SVEL|SOUND VELOCITY
TEMP|Temperature
TPHS|Total Phosphorous (P) Content mmol/m**3
TRAN|Transmissivity (uncertain units)
TRB$|Turbidity data from a flow through nephelometer
TUR$|Turbidity
URE$|Urea (H2NCONH2)
USAL|UNDEFINED SALINITY (Prac. Sal in or parts/thousand) - see also SALO7AAN
#
# Additional codes from pcode list that appear to be appropriate for
# profType in nProfs, and profileType in profile, but which are not currently
# used in the database or listed in datatype_descript as of 7/1/2004.
# Nine params with standards but no data (ALKY, CALK, CORG, FLO1, NH3$, PH1$,
# POC_, SUL$, TPHS) have been moved from here to the active "PC_PROF" list
# to provide labels for those observation standards tables.
#
# B12$|Vitamin B12
# CDX1|Dissolved organic C = CORG DX
# CHLR|CHLORINITY (PARTS/THOUSAND)
# CHLS|CHLOROSITY
# CPX1|Particulate C = CORG PX
# CTOT|TOTAL CARBON (C) CONTENT
# DENS|SEA DENSITY
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# FLU$|Flourescence
# HCDM|DIRECTION TO WHICH HORIZONTAL CURRENT IS FLOWING (relative to Magnetic North)
# HSUL|HYDROGEN SULPHIDE (H2S-S) CONTENT
# NORG|ORGANIC NITROGEN CONTENT
# NTOT|TOTAL NITROGEN (N) CONTENT
# OXS$|Percent Oxygen saturation
# PHI$|Inorganic phosphate
# POTH|POTENTIAL TEMPERATURE
# PRES|SEA PRESSURE (sea surface - 0)
# RELP|RELATIVE TOTAL PRESSURE
# SVEL|SOUND VELOCITY
#
#
>TABLE|PC_HIST|Action parameter codes in station history group (actparm)
>FIELD|actParm
>SQL|SELECT code, descript FROM gtspp.pcode_descript WHERE tableid = 'stationhistory' ORDER
BYM$|Previous bulletin year-month as YYMM
CCLL|Platform call sign
CHCD|Change code in surfacecodes or surfaceparms group
CRID|cruiseID has been changed
DATE|Date within year in format mmdd
DAY$|Day within DATE, format DD
DEPH|Sensor Depth below Sea Surface
DTE$|The date(DDMMY) in IGOSS messages where DD=day, MM=month, Y= last digit of the year
D_P$|Depth/Pressure indicator , D=depth in meters P=pressure units
FLAG|qRecord Flag has been changed
HHMM|Time within day in format hhmm
HOUR|Hours within day
LALO|QPos flag has been changed
LAT$|The latitude in IGOSS format of DDMM where DD is the degrees and MM the minutes of lati
LATI|Latitude as decimal degrees
LON$|The longitude in IGOSS format of DDMM where DD is the degrees and MM the minutes of lor
LONG|Longitude as decimal degrees
MNTH|Calendar month (MM) within year
MNTS|Minutes within DATE, format MM
NSRF|Correction made to nSurfc column in station table
OCC$|NODC SQL procedure for fixing Ocean Code "99" values and assign appropriate Ocean Code
RCRD|Indicates a record has been created or actions are taken against the entire record
YEAR|Calendar year
#
#
>TABLE|PC_PARM|Surface parameter codes (pcode)
>FIELD|pcode
>SQL|SELECT code, descript FROM gtspp.pcode_descript WHERE tableid = 'surfaceparms' ORDER BY
ANH$|Anemometer height above station level
ATMP|Atmospheric Pressure at Altitude
ATMS|Atmospheric pressure at sea level
ATPT|Atmospheric pressure tendency
B14$|14V battery voltage (Provor)
BATH|Bathymetric Depth
BCI$|Indicator for Method of Current Measurement (WMO code 2266)
BV7$|7V battery voltage (Provor)
CCVR|Total Cloud Cover in Tenths of Sky
CDD$|CO2 transits warming diff. (degrees C)
CDP$|pCO2 in atmosphere ppm, partial pressure of CO2 in a dry or wet gas sample
CDX$|xCO2 in atmosphere ppm, mole fraction of CO2 in dry gas sample
CITW|Civil Twilight
CLCM|Amount of low/medium altitude cloud (oktas - WMO code 2700)
DEPP|Significant figures for Depth
DEWT|Dew Point Temperature
DPS$|Drift data sampling period (Provor)
DRDP|Depth of drogue
DRHR|Duration
DRYT|Dry Bulb Temperature
GGCM|Indicator for Method of Current Measurement (WMO code 2266)
HEAD|Platform heading (relative to true north)
HM2$|Hour and minute at the end of a tow (Batfish)
HTL$|Height of the XBT launcher above the water
ICT$|Ice thickness
INTE|Incubation Time End
INTS|Incubation Time Start
LATP|Significant figures in Latitude
LN2$|The second longitude (from DRIBU message)
```

```
LNC$|Launcher height
LOAN|Local Apparent Noon
LONP|Significant figures in Longitude
LT2$|The second latitude (from DRIBU message)
MBN$|The message block number from a Service Argos message. Each message gets a unique numbe
NPA$|Number of pump actions in ascent (Provor)
NPD$|Number of pump actions in descent (Provor)
NPS$|Number of pump actions at surface (Provor)
NRP$|Number of repositions (Provor)
NVD$|Number of pump actions in descent (Provor)
NVS$|Number of valve actions at the surface (Provor)
PB1$|Battery voltage at initial pump extension
PBA$|Battery voltage with air pump running
PBC$|Battery current at initial pump extension completion
PBP$|Air bladder pressure in counts
PBS$|The position of the piston, in counts, for a profiling float at the parking depth. Cour
PBV$|Battery voltage remaining for a profiling float
PCA$|Battery current with air pump running
PCS$|Battery current at SBE pump time
PFL$|The number of samples in the profile (APEX)
PFN$|Profile number generated by Service Argos
PIV$|Internal vacuum recorded before the last descent of a profiling float
PMT$|Pump motor time
POF$|Pressure offset (Provor)
PP1$|Profile piston position in counts
PP2$|The surface piston position for a profiling float. Positions counts are from 0 to 256 v
PPC$|Park battery current
PPS$|The piston position for a profiling float at the surface.Positions counts are from 0 to
PRHB|Probe Hit Bottom Indicator
PSP$|Surface pressure + 5 decibars recorded before the last descent of a profiling float
PVA$|Internal vacuum pressure (Provor)
PVS$|Battery voltage at SBE pump time
RELH|Relative Humidity
RTC$|Reference temperature code. See REF_TEMP.CODES
RTD$|Reference temperature water depth
RTM$|Reference temperature
SCDT|Direction to which Sea Surface Current is flowing (relative to true North)
SCR$|Instrument scan rate (from towed CTDs)
SCSP|Sea Surface Current Speed
SECC|Water transparency, Secchi disk depth
SOU$|Bathymetric Depth
SPDR|Relative platform speed through the air/water
SRT$|Sea surface reference temperature
SSD$|Depth of sea surface temperature sensor
SSPS|Sea Surface Practical Salinity
SSTP|Sea Surface Temperature
SWDR|Direction from which SWELL is coming (relative to True North)
SWHT|Swell Height
SWPR|Swell Period
TCN$|Originators Tow or Cast number
TCS$|Consecutive profile in tow (Identifies segments in underway data)
TDE$|End of descent time (Provor)
TER$|End of resurfacing time (Provor)
TFS$|First stabilization time (Provor)
TIMP|Significant figures in Time
TSD$|Descent start time (Provor)
VDIR|Visual estimate of direction from which waves are coming (relative to true north)
VEST|Visual Average Wave Height
VISB|Horizontal Visibility (WMO code 4300)
VPER|Visual Estimate of Wave Period
WDIR|Direction from which wind is blowing(relative to true North)
WETT|Wet Bulb Temperature
WFBS|Wind Force on Beaufort Scale
WSP#|Wind speed
WSPD|Horizontal Wind Speed
WWCD|Present Weather (WMO Code 4677)
XCDP|XBT calibration depth
XCTM|XBT calibration temperature
#
#
>TABLE|PC_CODE|Surface code group codes (srfcCode)
>FIELD|srfcCode
>SQL|SELECT code, descript FROM gtspp.pcode_descript WHERE tableid = 'surfacecodes' ORDER BY
```

```
AC2$|A unique number constructed as system hour, minute, second,profile number
ACC$|MEDS accesion number
ACCS|Accession number
ADID|AODC Unique ID
AFC$|ARGOS fix code (satellite fix and location accuracy)
ANT$|Anemometer type (WMO code table 0114).
APN$|The Service Argos program number
AREA|Area code used by NODC code PA = Pacific, IN = Indian, AT =Atlantic
ARG$|ARGOS ID number given to a platform, assigned by the ARGOS Project Office
BMS$|BUFR SST Method Code
BQA$|QA in buoy code form
BQZ$|Depth correction indicator (WMO code 3318)
BTP$|Buoy type (WMO code 0370)
CAST|Hydrographic cast type
CCVR|Total Cloud Cover in Tenths of Sky
CLDA|Total Cloud Amount (WMO code 2700)
CLDT|Cloud Type (WMO code 0500)
CRC$|32 bit circular redundancy code (Special IGOSS Indicator)
CSC1|Chief Scientist"s Name
CSID|CSIRO unique ID
CSN$|IGOSS Call Sign
DBID|NODC Database Identification Number (Unique Identifier)
DDS$|Date of first drift sample (Provor or APEX) as YYYYMMDD
DKT$|Recorder type for IGOSS BTs. This is equivalent to RCT$.
DPC$|XBT depth correction status
DT2$|Date at the end of a tow (Batfish)
FRA$|Fall rate (correction factor for XBT probes)
FRE$|Code for fall rate equation used. See IGOSS code table.
FRQ$|Argos system data (frequency) used for back conversion to Raw data
GCLL|Call Sign
GE1$|Contents of the first engineering group (8xxxx) in a DRIBU message
GE2$|Contents of the second engineering group (8xxxx) in a DRIBU message
GG1$|Contents of the group 111 QdQx in FMB-X Buoy Code form
GG2$|Contents of the group 222 QdQx in FMB-X Buoy Code form
GG3$|Contents of the group 333 QdQx in FMB-X Buoy Code form
GGC$|The 5 character 66... group used in a TESAC message to indicate information about the s
GGI$|The 5 character 88.. group used in a BATHY and a TESAC message to indicate information
GGST|(2QNQLQAQz) QN=WMO-3313: Quality of the buoy satellite transmission; QL=WMO-3311: Quali
GNCO|NODC consecutive station number
GNCR|NODC Cruise Number
GNOX|Position 1 = OSV Flag Position 2 = Instrument Type Position 3 = Probe Type
GOCO|Originators Consec Number
GOCR|Originators Cruise Number
HM2$|Hour and minute at the end of a tow (Batfish)
ICD$|Equivalent to IST$
ICEF|Flag for Ice in vicinity of Hydrographic Observation
IDEN|Data identifier
INS1|Institute
IST$|Instrument name
LDAT|Load Date at NODC
LYD$|Lloyds registration (Platform) number
MRT#|Reference Type (Instrument for reference temp) (OCL revised table to include types 9 ar
NAM$|Number of ascent messages (Provor)
NPA$|Number of pump actions in ascent (Provor)
NPS$|Number of pump actions at surface (Provor)
NVD$|Number of valve actions in descent (Provor)
NVS$|Number of valve actions at the surface (Provor)
OCD$|NODC OCL Database Type
OCL#|NODC OCL Reference Number
OCP$|NODC OCL Platform Code (OCL-WOD 2nd header 3)
OCR$|The originator"s cruise number
OID$|Originator"s station identifier
OLS#|NODC OCL Unique Station Number
OMV$|Oceanographic Measuring Vehicle Type
ONM1|Originator"s name
PDID|NODC Ocean profile database ID
PDT$|The date as DDMMY of the last position (from  DRIBU message)
PEQ$|XBT fall rate equation (WMO code 1770)
PFR$|XBT probe type and fall rate equation
PGID|Program identification
PLAT|Platform
PLTN|MEDS Ship Platname
PNM1|Platform name
```

```
PRHB|Probe Hit Bottom Indicator
PRO1|NODC project code (same as PROJ)
PROJ|NODC project code
PRT$|XBT probe type
PTM$|The time as HHMM/ of the last position (from  DRIBU message)
PTT$|The Service Argos ptt number
QAF$|QC tests "Fail" - AOML
QAO$|Quality control performed at AOML
QAP$|QC tests "Performed" - AOML
QCF$|QC tests "Fail" - MEDS
QCP$|QC tests "Performed" - MEDS
QIF$|The indicator encoding which QC tests from Institute Maurice Lamontagne were failed
QNF$|QC tests "Fail" - NODC
QNP$|QC tests "Performed" - NODC
QOF$|QC tests "Fail" - AODC
QOP$|QC tests "Performed" - AODC
QPS#|QC tests "Fail" for PSAL - NODC
QRF$|QC tests "Fail" - CSIRO
QRP$|QC tests "Performed" - CSIRO
QSF$|QC tests "Fail" - SCRIPPS
QSP$|QC tests "Performed" - SCRIPPS
QTE#|QC tests "Fail" for TEMP - NODC
RCT#|XBT recorder type (NODC-OCL modification of WMO code 4770)
RCT$|XBT recorder type (WMO code 4770)
REP$|Records that one or more profiles have replicate samples at one or more depths. The prc
RTC$|Reference temperature code. See REF_TEMP.CODES
SAT$|Satellite identifier
SEAS|Sea State (WMO code 3700)
SEC$|SEAS Unique Identifier
SER1|Instrument Serial Number
SHP#|Ship name
SSSL|Sea Surface Salinity (pre-1978 definition)
STAT|GTSPP STATUS
STM#|Sea surface temperature method
SVR$|SEAS version number
SYS$|System recorder
TCID|IFREMER TOGA Center Unique Database ID
TFF$|Float time (Provor) as HHMMSS
TIME|Time within day in format HHMMSS
UKH$|UKHO Bibliographic Reference Number
VDIC|Wave direction (WMO code 0877)
VIS#|Horizontal Visibility (WMO code 4300)
VISB|Horizontal Visibility (WMO code 4300)
VISC|Horizontal Visibility (WMO code 4300)
VSB#|Horizontal Visibility (WMO code 4300)
WAT$|Argos system data (WAIT) used for back conversion to Raw data
WCF$|WMO Code form designator eq. IB-XBUOY
WCL$|Water color (NODC-OCL extension of Forel-Ule scale)
WCLR|Water colour (Forel-Ule scale)
WDC$|Wind direction code (octants)
WDIC|Wind direction (WMO code 0877)
WDR#|Wind direction (WMO code 0877 / 0885)
WFBS|Wind Force on Beaufort Scale
WSC$|Wind force code (code translates to knots)
WVD#|Wave direction
WVH#|Wave height (WMO Code Table 1555)
WVH$|Wave height (NODC OCL Code)
WVP#|Wave period (WMO code 3155)
WVP$|Wave period (NODC code 0378)
WVR#|Wave direction (WMO code 0877 / 0885)
WWC#|Present weather (WMO code 4501)
WWCD|Present Weather (WMO Code 4677)
XDIN|XBT digitization Interval (NODC-0613)
XDMT|XBT digitization Method (NODC-0612)
XINS|Instrument type
XTRS|XBT data Treatment and Storage (NODC-0614)
#
#
# The following pcodes are not currently used in the database for
#   profType    in nProfs
#   profileType in profile
#   pCode       in surfaceParms
#   srfcCode    in surfaceCodes
```

```
#   actParm     in stationhistory
# These have been left out of "PC_HIST", "PC_PARM", and "PC_CODE" because
# they are not currently in database.
#
# 5ALO|SALINITY UNITS FLAG
# ABSH|ABSOLUTE HUMIDITY
# ALTG|HEIGHT/ALTITUDE ABOVE GROUND LEVEL
# ALTS|HEIGHT/ALTITUDE ABOVE MEAN SEA LEVEL
# APC1|Averaging period for surface current direction code, (mC of TRACKOB)
# APER|Averaging period for measurement (WMO code table 2604)
# APS1|Averaging period for salinity code, (mS of TRACKOB)
# APT1|Averaging period for sea temperature code,(mT of TRACKOB)
# ASTD|AIR-SEA TEMPERATURE DIFFERENCE
# AT~K|ANGLE OF ATTACK (AIRCRAFT)
# ATRK|ALONG TRACK DISPLACEMENT
# BAND|BANDWIDTH OF SPECTRAL ANALYSIS
# BDIR|BANDWIDTH OF DIRECTIONAL ANALYSIS
# BEST|BANDWIDTH OF SPECTRAL COMPONENT
# BRIT|BRIGHTNESS (RADIATIVE) TEMPERATURE
# BTC1|BT temperature correction
# BTN1|BT slide number
# BTR1|BT surface reference temperature
# BTS1|BT surface temperature
# CCCC|DATA CYCLE OVERFLOW INDICATOR
# CFLG|DATA CONTINUATION FLAG
# CHAN|NUMBER OF SENSOR CHANNELS
# CHCH|TYPE OF HIGH ALTITUDE CLOUD (WMO CODE 0509)
# CLCL|TYPE OF LOW ALTITUDE CLOUD (WMO CODE 0513)
# CLDB|CLOUD BASE ALTITUDE
# CLDH|CLOUD BASE HEIGHT (WMO CODE 1600)
# CMCM|TYPE OF MEDIUM ALTITUDE CLOUD  (WMO CODE 0515)
# CNDC|ELECTRICAL CONDUCTIVITY
# CNQF|CHEMICAL CONTENT QUALIFIER FLAG
# CTF$|The indicator that encodes which quality control tests for chemical data that were fa
# CTP$|The indicator that encodes which quality control tests on chemical data have been exe
# CVTQ|CO-VARIANCE OF AIR TEMPERATURE AND SPECIFIC HUMIDITY
# CVWQ|CO-VARIANCE OF WIND SPEED AND SPECIFIC  HUMIDITY
# CVWS|CO-VARIANCE OF WIND SPEED COMPONENTS
# CVWT|C0-VARIANCE OF WINO SPEED AND AIR TEMPERATURE
# DATH|BATHYMETRIC DATUM
# DATM|BATHYMETRIC DATUM
# DAYS|DAY NUMBER WITHIN YEAR (Jan 1st - 1) (none in database)
# DDB$|The date as YYYYMMDD of deployment
# DEB$|The date as YYYYMMDD of the last message received.
# DEC$|The code for why messages ceased.
# DEWD|DEW POINT DEPRESSION
# DIRM|BEARING OF OBJECT FROM REFERENCE POINT (relative to magnetic North)
# DIRT|BEARING OF OBJECT FROM REFERENCE POINT (relative to True North)
# DISE|DISTANCE OF OBJECT IN DIRECTION TRUE EAST FROM REFERENCE POINT
# DISN|DISTANCE OF OBJECT IN DIRECTION TRUE NORTH FROM REFERENCE POINT
# DLA$|Latitude (north +ve) at deployment
# DLO$|Longitude (+/- 180 west +ve) at deployment
# DPSF|DEPTH BELOW SEA FLOOR
# DRD$|The date as YYYYMMDD that the drogue was lost
# DRMN|DURATION (MINUTES)
# DROP|DEPTH OF DROGUE
# DRSC|DURATION (SECONDS)
# DRT$|The drogue type code
# DTC$|Calibration date as YYYYMMDD
# DTDZ|VERTICAL AIR TEMPERATURE GRAOIENT
# EAG1|Name of the exchange agency
# EAZM|AZIMUTH OF MAJOR AXIS OF NAVIGATION ERROR ELLIPSE
# EEEE|DECIMAL EXPONENT
# ELA$|The error in latitude
# ELEV|ELEVATION ANGLE OF OBJECT FROM REFERENCE POINT
# ELO$|The error in longitude
# EMAJ|LENGTH OF SEMIMAJOR AXIS OF NAVIGATION ERROR ELLIPSE
# EMIN|LENGTH OF SEMIMINOR AXIS OF NAVIGATION ERROR ELLIPSE
# EST$|The error in SST
# ETHR|ELAPSED TIME (HOURS)
# ETMN|ELAPSED TIME (MINUTES)
# ETSC|ELAPSED TIME (SECONDS)
# EWCM|EAST (MAGNETIC) COMPONENT OF CURRENT
```

```
# EWCT|EAST (TRUE) COMPONENT OF CURRENT
# EXP$|The originator"s experiment number
# FFFF|QUALITY CONTROL FLAG
# FIXF|PRIME NAVIGATION AID FIX FLAG
# FREQ|FREQUENCY
# GBGA|BOUGER GRAVITY ANOMALY
# GDIR|DIRECTION FROM WHICH GUST WIND IS BLOWING (relative to True North)
# GE3$|Contents of the third engineering group in a DRIBU message
# GEOT|GRAVITY EOTVOS CORRECTION
# GFAA|FREE AIR GRAVITY ANOMALY
# GGCD|PERIOD OF CURRENT MEASUREMENT (DRIFT) (WMO CODE 2265)
# GGDI|INDICATOR FOR DIGITIZATION (WMO CODE 2262)
# GGEC|DURATION AND TIME OF EULERIAN CURRENT MEASUREMENT (WMO CODE 2264)
# GGIN|IGOSS BATHY/TESAC INDICATORS
# GGK6|Method of removing ship velocity code (k6 of a TESAC message)
# GGLC|QUALITY OF LOCATION (WMO CODE 3311)
# GGMS|IGOSS MESSAGE IDENTIFIER
# GGOI|INDICATOR FOR OIGITI2ATION (WMO CODE 2262)
# GGQF|INTERVAL (HOURS)ROL FLAGS FOR DATE, TIME, POSITION AND SEA FLOOR DEPTH
# GGSL|METHOD OF SALINITY/DEPTH MEASUREMENT (WMO CODE 2263)
# GGWI|WIND SPEED INDICATOR (WMO CODE 1853)
# GIN$|Contents of the group 1QpQ2QtwQ4 in the DRIBU message
# GPA$|Geopotential Anomaly
# GPT$|Pressure tendency code (see WMO code table 0200)
# GRAV|OBSERVED GRAVITY
# GSPD|GUST WIND SPEED
# HGHT|HEIGHT/ALTITUDE ABOVE SEA SURFACE
# HIGF|HIGH FREQUENCY CUT OFF FOR INTEGRATION UNDER SPECTRUM
# HMXR|HUMIDITY MIXING RATIO
# HTSF|HEIGHT ABOVE SEA FLOOR
# LATD|LATITUDE DEGREES (North +ve)
# LATH|LATITUDE MINUTES WITHIN DEGREE (North +ve)
# LINC|LONG-WAVE INCOMING RADIATION
# LOND|LONGITUDE DEGREES (East +ve)
# LONM|LONGITUDE MINUTES WITHIN DEGREE (East +ve)
# LOUT|LONG-WAVE OUTGOING RADIATION
# LOWF|LOW FREQUENCY CUT OFF FOR INTEGRATION UNDER SPECTRUM
# LVLS|SELECTION OF DEPTH LEVELS
# LWCT|LIQUID WATER CONTENT
# MAGC|MAGNETIC FIELD CORRECTION
# MAGN|MAGNETIC VARIATION FROM TRUE NORTH
# MAGR|RESIDUAL MAGNETIC FIELD
# MAGT|TOTAL MAGNETIC FIELD
# MINS|MINUTES WITHIN HOUR
# MMFX|METHOD CODE FOR POSITION FIXING
# MMMM|METHOD CODE IN USER DEFINED AREA
# MNS$|Minimum salinity (Batfish)
# MNT$|Minimum temperature (Batfish)
# MXS$|Maximum salinity
# MXT$|Maximun temperature
# NETR|NET RADIATION
# NIRR|NEAR-INFRARED RADIATION
# NSCM|NORTH (MAGNETIC) COMPONENT OF CURRENT
# NSCT|NORTH (TRUE) COMPONENT OF CURRENT
# NTHR|INTERVAL (HOURS)
# NTMN|INTERVAL (MINUTES)
# NTSC|INTERVAL (SECONDS)
# NUM$|Number of points in channel (Batfish)
# PAIR|COUNT OF PARAMETER PAIRS IN DATA CYCLE
# Port|POTENTIAL AIR TEMPERATURE
# PRRT|PRECIPITATION RATE
# PRTN|PRECIPITATION AMOUNT
# PRV$|Probe velocity through water
# PTCH|PITCH ANGLE
# PTP1|Platform type
# PVAR|VARIANCE OF PRECEDING PARAMETER
# QFF$|The indicator that encodes which ORSTOM quality control tests have failed for tempera
# QFP$|The indicator that encodes which ORSTOM quality control tests have been executed for
# QPOS|QUALITY CONTROL FLAG FOR GEOGRAPHIC POSITION
# QSOL|GROUND HEAT FLUX
# QTIM|QUALITY CONTROL FLAG FOR SERIES DATE/TIME
# RADD|HORIZONTAL DISTANCE OF OBJECT FROM REFERENCE POINT
# RANG|DIRECT DISTANCE OF OBJECT FROM REFERENCE POINT
```

```
# ROLL|ROLL ANGLE
# SDAT|STANDARD DEVIATION OF AIR TEMPERATURE
# SDEv|STANDARD DEVIATION OF PRECEDING PARAMETER
# SDHU|STANDARD DEVIATION OF SPECIFIC HUMIDITY
# SDIF|SHORT-WAVE DIFFUSE RADIATION
# SDIR|SHORT-WAVE DIRECT RADIATION
# SDS$|Standard deviation of salinity (Batfish)
# SDT$|Standard deviation of temperature (Batfish)
# SDWS|STANDARD DEVIATION OF WIND SPEED
# SECC|SECCHI DISC DEPTH
# SECS|SECONDS WITHIN MINUTE
# SIDE|ANGLE OF SIDESLIP (AIRCRAFT)
# SINC|SHORT-WAVE INCOMING RADIATION
# SLEV|OBSERVED SEA LEVEL
# SOLT|GROUND (SOIL) TEMPERATURE
# SOUT|SHORT-WAVE OUTGOING RADIATION
# SPCF|FREQUENCY OF SPECTRAL COMPONENT
# SPDG|TRUE PLATFORM SPEED ACROSS THE GROUND
# SPDI|INDICATED PLATFORM SPEED (AIRCRAFT)
# SPDV|VERTICAL PLATFORM SPEED
# SPEH|SPECIFIC HUMIDITY
# SSTP|SEA SURFACE TEMPERATURE
# STAG|STAGNATION TEMPERATURE
# SVCZ|BATHYMETRY SOUND VELOCITY CORRECTION AREA
# TDFL|TRACE DIRECTION FLAG
# TDIF|AIR TEMPERATURE DIFFERENCE BETWEEN TWO LEVELS (UPPER-LOWER)
# TEXT|PLAIN LANGUAGE TEXT
# TGRD|SEA TEMPERATURE GRADIENT
# TOTP|TOTAL PRESSURE (atmosphere# sea pressure)
# TWCT|TOTAL WATER CONTENT
# TWTT|BATHYMETRIC TWO WAY TRAVEL TIME
# ULTH|ULTRA-VIOLET RADIATION
# VAPP|ACTUAL WATER VAPOUR PRESSURE
# VAVH|AVERAGE HEIGHT HIGHEST ONE THIRD WAVES
# VBRF|WAVES SPECTRAL WIDTH (BROADNESS)
# VCAR|CHARACTERISTIC WAVE HEIGHT (4*RMS)
# VCMX|MAXIMUM CREST TO TROUGH WAVE HEIGHT
# VCXX|AUTO-SPECTRUM OF NORTH-SOUTH TILT
# VCXY|CO-SPECTRUM OF NORTH-SOUTH AND EAST-WEST TILTS
# VCYY|AUTO-SPECTRUM OF EAST-WEST TILT
# VCZX|CO-SPECTRUM OF HEAVE AND NORTH-SOUTH TILT
# VCZY|CO-SPECTRUM OF HEAVE AND EAST-WEST TILT
# VDEP|SPECIFIED DIRECTION OF WAVE ENERGY PROPAGATION
# VDSD|DIRECTIONAL WAVE SPECTRUM DENSITY
# VERT|VERTICAL DISTANCE OF OBJECT ABOVE REFERENCE POINT
# VIRT|VIRTUAL AIR TEMPERATURE
# VIS$|Visibility code (WMO code table 4300)
# VMED|WAVE SPECTRUM MEAN ENERGY DIRECTION
# VMNL|MINIMUM WAVE LEVEL
# VMTA|ZEROETH MOMENT OF WAVE SPECTRUM
# VMTB|FIRST MOMENT OF WAVE SPECTRUM
# VMTC|SECOND MOMENT OF WAVE SPECTRUM
# VMTD|THIRD MOMENT OF WAVE SPECTRUM
# VMTE|FOURTH MOMENT OF WAVE SPECTRUM
# VMTH|FIRST NEGATIVE MOMENT OF WAVE SPECTRUM
# VMTN|SECOND NEGATIVE MOMENT OF WAVE SPECTRUM
# VMWD|MEAN WAVE DIRECTION FROM CROSS SPECTRA
# VMXL|MAXIMUM WAVE LEVEL
# VNUM|NAVE NUMBER FROM CROSS SPECTRA
# VPED|WAVE SPECTRUM PEAK ENERGY DIRECTION
# VQXY|QUAD-SPECTRUM OF NORTH-SOUTH AND EAST-WEST TILTS
# VQZX|QUAD-SPECTRUM OF HEAVE AND NORTH-SOUTH TILT
# VQZY|QUAD-SPECTRUM OF HEAVE AND EAST-WEST TILT
# VRAT|VARIANCE OF AIR TEMPERATURE
# VRHU|VARIANCE OF SPECIFIC HUMIDITY
# VRMS|RMS WAVE DISPLACEMENT
# VRWS|VARIANCE OF WIND SPEED
# VSDN|WAVE VARIANCE SPECTRAL DENSITY : 5(f)
# VSMA|SPECTRAL MOMENTS (-1,0) WAVE PERIOD
# VSMB|SPECTRAL M0MENTS (0,1) WAVE PERIOD
# VSMC|SPECTRAL MOMENTS (0,2) WAVE PERIOD
# VSMO|SPECTRAL MOMENTS (2,4) WAVE PERIOD
# VSPR|WAVE DIRECTIONAL SPREAD FROM CROSS SPECTRA
```

```
# VSWD|WAVES SPECTRAL WIDTH FROM MOMENTS
# VTCA|AVERAGE WAVE CREST PERIOD
# VTDH|TUCKER DRAPER SIGNIFICANT WAVE HEIGHT
# VTKC|SECOND HIGHEST WAVE CREST
# VTKD|SECOND LOWEST WAVE TROUGH
# VTPK|WAVE SPECTRUM PEAK PERIOD
# VTZA|AVERAGE ZERO CROSSING WAVE PERIOD
# VTZM|PERIOD OF MAXIMUM ZERO CROSSING WAVE
# VWSA|INSTANTANEOUS HEAVE ACCELERATION
# VWSE|INSTANTANEOUS WATER SURFACE ELEVATION
# VWSH|VERTICAL WIND SHEAR
# VWTE|WATER SURFACE EAST-WEST TILT ANGLE
# VWTN|WATER SURFACE NORTH-SOUTH TILT ANGLE
# VZMX|MAXIMUM ZERO CROSSING WAVE HEIGHT
# WMDP|MEAN WATER DEPTH
# WMO$|WMO platform identifier number
# WRDP|MEAN RECORD WATER DEPTH
# WSP#|Wind speed
# WSPD|HORIZONTAL WIND SPEED
# WSPE|EASTWARD (TRUE) COMPONENT OF WIND SPEED
# WSPN|NORTHWARD (TRUE) COMPONENT OF WIND SPEED
# WTHA|PAST WEATHER (WM0 CODE 4561)
# WVER|VERTICAL WIND SPEED
# XCDP|XBT calibration depth
# XCTM|XBT calibration temperature
# XEQ$|XBT fall rate equation used (see IGOSS table)
# XTRK|ACROSS TRACK DISPLACEMENT (starboard +ve)
# ZNTH|ZENITH ANGLE OF OBJECT FROM REFERENCE POINT
# ZONE|TIME ZONE CORRECTION
#
#
#
# The Observation Standard code tables in this section are each
# unlikely to change, but additional parameters with new standards
# may be added.  These tables will be read from the database tables
# using the SQL shown, when the database is available.
#
>BEGIN|STD_xxxx|Standard|Prof_Type|Obs Standard
>SQL|SELECT profiletype, code, descript FROM gtspp.standard_code_descript ORDER BY profilety
>TABLE|STD_ALKY|Obs Standard for profType='ALKY': TOTAL ALKALINITY
>FIELD|Standard WHEN Prof_Type = 'ALKY'
0|No value measured
1|Accuracy better the 0.01 (mmol/m**3)
2|Accuracy less the 0.01 (mmol/m**3)
3|sample analysis (mmol/m**3)
4|In situ sensor, unknown accuracy (micro-eq/l == mmol/m**3)
5|In situ sensor, accurate to 0.001 (mmol/m**3)
B|Accuracy is between .001 and .002 (mmol/m**3)
C|Accuracy is between .002 and .005 (mmol/m**3)
E|Accuracy is between .01 and .02 (mmol/m**3)
F|Accuracy is between .02 and .05 (mmol/m**3)
H|Accuracy is between .1 and .2 (mmol/m**3)
I|Accuracy is greater than .2 (mmol/m**3)
U|Unknown units
#
>TABLE|STD_CALK|Obs Standard for profType='CALK': CARBONATE ALKALINITY
>FIELD|Standard WHEN Prof_Type = 'CALK'
0|No value measured
1|Accuracy better the 0.01 (mmol/m**3)
2|Accuracy less the 0.01 (mmol/m**3)
3|sample analysis (mmol/m**3)
4|In situ sensor, unknown accuracy (micro-eq/l == mmol/m**3)
5|In situ sensor, accurate to 0.001 (mmol/m**3)
B|Accuracy is between .001 and .002 (mmol/m**3)
C|Accuracy is between .002 and .005 (mmol/m**3)
E|Accuracy is between .01 and .02 (mmol/m**3)
F|Accuracy is between .02 and .05 (mmol/m**3)
H|Accuracy is between .1 and .2 (mmol/m**3)
I|Accuracy is greater than .2 (mmol/m**3)
U|Unknown units
#
>TABLE|STD_COND|Obs Standard for profType='COND': (Conductivity)   Data from CSIRO
>FIELD|Standard WHEN Prof_Type = 'COND'
```

```
0|No conductivity measured
1|In situ sensor, precision to 0.01
2|In situ sensor, precision to 0.1
4|unknown accuracy
#
>TABLE|STD_CORG|Obs Standard for profType='CORG': ORGANIC CARBON CONTENT
>FIELD|Standard WHEN Prof_Type = 'CORG'
0|No value measured
1|Accuracy better the 0.01 (mmol/m**3)
2|Accuracy less the 0.01 (mmol/m**3)
3|sample analysis (mmol/m**3)
4|In situ sensor, unknown accuracy (mg/l == mmol/m**3)
5|In situ sensor, accurate to 0.001 (mmol/m**3)
B|Accuracy is between .001 and .002 (mmol/m**3)
C|Accuracy is between .002 and .005 (mmol/m**3)
E|Accuracy is between .01 and .02 (mmol/m**3)
F|Accuracy is between .02 and .05 (mmol/m**3)
H|Accuracy is between .1 and .2 (mmol/m**3)
I|Accuracy is greater than .2 (mmol/m**3)
U|Unknown units
#
>TABLE|STD_CPHL|Obs Standard for profType='CPHL': CHLOROPHYLL-A
>FIELD|Standard WHEN Prof_Type = 'CPHL'
0|No value measured
1|Accuracy better the 0.01 (mmol/m**3)
2|Accuracy less the 0.01 (mmol/m**3)
3|sample analysis (mmol/m**3)
4|In situ sensor, unknown accuracy (mg/l == mmol/m**3)
5|In situ sensor, accurate to 0.001 (mmol/m**3)
B|Accuracy is between .001 and .002 (mmol/m**3)
C|Accuracy is between .002 and .005 (mmol/m**3)
E|Accuracy is between .01 and .02 (mmol/m**3)
F|Accuracy is between .02 and .05 (mmol/m**3)
H|Accuracy is between .1 and .2 (mmol/m**3)
I|Accuracy is greater than .2 (mmol/m**3)
U|Unknown units
#
>TABLE|STD_DOXY|Obs Standard for profType='DOXY': DISSOLVED OXYGEN
>FIELD|Standard WHEN Prof_Type = 'DOXY'
0|No value measured
1|Accuracy better the 0.01 (mmol/m**3)
2|Accuracy less the 0.01 (mmol/m**3)
4|In situ sensor, unknown accuracy (microg-at/l == mmol/m**3)
5|In situ sensor, accurate to 0.001 (mmol/m**3)
B|Accuracy is between .001 and .002 (mmol/m**3)
C|Accuracy is between .002 and .005 (mmol/m**3)
E|Accuracy is between .01 and .02 (mmol/m**3)
F|Accuracy is between .02 and .05 (mmol/m**3)
H|Accuracy is between .1 and .2 (mmol/m**3)
I|Accuracy is greater than .2 (mmol/m**3)
U|Unknown units
#
>TABLE|STD_FLO1|Obs Standard for profType='FLO1': Flouride
>FIELD|Standard WHEN Prof_Type = 'FLO1'
0|No value measured
1|Accuracy better the 0.01 (mmol/m**3)
2|Accuracy less the 0.01 (mmol/m**3)
3|sample analysis (mmol/m**3)
4|In situ sensor, unknown accuracy (mg/l == mmol/m**3)
5|In situ sensor, accurate to 0.001 (mmol/m**3)
B|Accuracy is between .001 and .002 (mmol/m**3)
C|Accuracy is between .002 and .005 (mmol/m**3)
E|Accuracy is between .01 and .02 (mmol/m**3)
F|Accuracy is between .02 and .05 (mmol/m**3)
H|Accuracy is between .1 and .2 (mmol/m**3)
I|Accuracy is greater than .2 (mmol/m**3)
U|Unknown units
#
>TABLE|STD_HCDT|Obs Standard for profType='HCDT': DIRECTION TO WHICH HORIZONTAL CURRENT IS F
>FIELD|Standard WHEN Prof_Type = 'HCDT'
0|No current direction measured
1|Precision to 1 degrees
2|Precision to 10 degrees
```

```
4|Unknown precision
5|Precision to 0.1 degrees
#
>TABLE|STD_HCSP|Obs Standard for profType='HCSP': HORIZONTAL CURRENT SPEED
>FIELD|Standard WHEN Prof_Type = 'HCSP'
0|No current speed measured
1|Precision to 1m/s
2|Precision to 0.1 m/s
3|Precision to 0.01 m/s
4|Unknown precision
5|Precision to 0.001 m/s
#
>TABLE|STD_NH3$|Obs Standard for profType='NH3$': NH3-N
>FIELD|Standard WHEN Prof_Type = 'NH3$'
0|No value measured
1|Accuracy better the 0.01 (mmol/m**3)
2|Accuracy less the 0.01 (mmol/m**3)
3|sample analysis (mmol/m**3)
4|In situ sensor, unknown accuracy (microg/l == mmol/m**3)
5|In situ sensor, accurate to 0.001 (mmol/m**3)
B|Accuracy is between .001 and .002 (mmol/m**3)
C|Accuracy is between .002 and .005 (mmol/m**3)
E|Accuracy is between .01 and .02 (mmol/m**3)
F|Accuracy is between .02 and .05 (mmol/m**3)
H|Accuracy is between .1 and .2 (mmol/m**3)
I|Accuracy is greater than .2 (mmol/m**3)
U|Unknown units
#
>TABLE|STD_NTRA|Obs Standard for profType='NTRA': NITRATE (NO3-N) CONTENT
>FIELD|Standard WHEN Prof_Type = 'NTRA'
0|No value measured
1|Accuracy better the 0.01 (mmol/m**3)
2|Accuracy less the 0.01 (mmol/m**3)
3|sample analysis (mmol/m**3)
4|In situ sensor, unknown accuracy (microg-at/l == mmol/m**3)
5|In situ sensor, accurate to 0.001 (mmol/m**3)
B|Accuracy is between .001 and .002 (mmol/m**3)
C|Accuracy is between .002 and .005 (mmol/m**3)
E|Accuracy is between .01 and .02 (mmol/m**3)
F|Accuracy is between .02 and .05 (mmol/m**3)
H|Accuracy is between .1 and .2 (mmol/m**3)
I|Accuracy is greater than .2 (mmol/m**3)
U|Unknown units
#
>TABLE|STD_NTRI|Obs Standard for profType='NTRI': NITRITE (N02-N) CONTENT
>FIELD|Standard WHEN Prof_Type = 'NTRI'
0|No value measured
1|Accuracy better the 0.01 (mmol/m**3)
2|Accuracy less the 0.01 (mmol/m**3)
3|sample analysis (mmol/m**3)
4|In situ sensor, unknown accuracy (microg-at/l == mmol/m**3)
5|In situ sensor, accurate to 0.001 (mmol/m**3)
B|Accuracy is between .001 and .002 (mmol/m**3)
C|Accuracy is between .002 and .005 (mmol/m**3)
E|Accuracy is between .01 and .02 (mmol/m**3)
F|Accuracy is between .02 and .05 (mmol/m**3)
H|Accuracy is between .1 and .2 (mmol/m**3)
I|Accuracy is greater than .2 (mmol/m**3)
U|Unknown units
#
>TABLE|STD_PH1$|Obs Standard for profType='PH1$': Replicate sample of inorganic phosphate
>FIELD|Standard WHEN Prof_Type = 'PH1$'
0|No value measured
1|Accuracy better the 0.01 (mmol/m**3)
2|Accuracy less the 0.01 (mmol/m**3)
3|sample analysis (mmol/m**3)
4|In situ sensor, unknown accuracy (microg-at/l == mmol/m**3)
5|In situ sensor, accurate to 0.001 (mmol/m**3)
B|Accuracy is between .001 and .002 (mmol/m**3)
C|Accuracy is between .002 and .005 (mmol/m**3)
E|Accuracy is between .01 and .02 (mmol/m**3)
F|Accuracy is between .02 and .05 (mmol/m**3)
H|Accuracy is between .1 and .2 (mmol/m**3)
```

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I|Accuracy is greater than .2 (mmol/m**3)
U|Unknown units
#
>TABLE|STD_PHOS|Obs Standard for profType='PHOS': PHOSPHATE (P04-P) CONTENT
>FIELD|Standard WHEN Prof_Type = 'PHOS'
0|No value measured
1|Accuracy better the 0.01 (mmol/m**3)
2|Accuracy less the 0.01 (mmol/m**3)
3|sample analysis (mmol/m**3)
4|In situ sensor, unknown accuracy (microg-at/l == mmol/m**3)
5|In situ sensor, accurate to 0.001 (mmol/m**3)
B|Accuracy is between .001 and .002 (mmol/m**3)
C|Accuracy is between .002 and .005 (mmol/m**3)
E|Accuracy is between .01 and .02 (mmol/m**3)
F|Accuracy is between .02 and .05 (mmol/m**3)
H|Accuracy is between .1 and .2 (mmol/m**3)
I|Accuracy is greater than .2 (mmol/m**3)
U|Unknown units
#
>TABLE|STD_PHPH|Obs Standard for profType='PHPH': HYDROGEN ION CONCENTRATION (pH)
>FIELD|Standard WHEN Prof_Type = 'PHPH'
0|No value measured
1|Accuracy better the 0.01
2|Accuracy less the 0.01
3|sample analysis
4|In situ sensor, unknown accuracy
5|In situ sensor, accurate to 0.001
B|Accuracy is between .001 and .002
C|Accuracy is between .002 and .005
E|Accuracy is between .01 and .02
F|Accuracy is between .02 and .05
H|Accuracy is between .1 and .2
I|Accuracy is greater than .2
U|Unknown units
#
>TABLE|STD_POC_|Obs Standard for profType='POC_': Particulate Organic Carbon content
>FIELD|Standard WHEN Prof_Type = 'POC_'
0|No value measured
1|Accuracy better the 0.01 (mmol/m**3)
2|Accuracy less the 0.01 (mmol/m**3)
3|sample analysis (mmol/m**3)
4|In situ sensor, unknown accuracy (mg/m**3 == mmol/m**3)
5|In situ sensor, accurate to 0.001 (mmol/m**3)
B|Accuracy is between .001 and .002 (mmol/m**3)
C|Accuracy is between .002 and .005 (mmol/m**3)
E|Accuracy is between .01 and .02 (mmol/m**3)
F|Accuracy is between .02 and .05 (mmol/m**3)
H|Accuracy is between .1 and .2 (mmol/m**3)
I|Accuracy is greater than .2 (mmol/m**3)
U|Unknown units
#
>TABLE|STD_PRP$|Obs Standard for profType='PRP$': Primary productivity
>FIELD|Standard WHEN Prof_Type = 'PRP$'
0|No value measured
1|derived from dried, filtered samples, values reported to 0.
A|derived from dried, filtered samples, values reported to 0.
U|unknown
#
>TABLE|STD_PSAL|Obs Standard for profType='PSAL': Salinity
>FIELD|Standard WHEN Prof_Type = 'PSAL'
0|No salinity measured
1|In situ sensor, accuracy better the 0.02 (PSU assumed)
2|In situ sensor, accuracy less the 0.02 (PSU assumed)
3|sample analysis (PSU assumed)
4|unknown accuracy (PSU assumed)
5|In situ sensor, accurate to 0.001 (PSU assumed)
B|Accuracy is between .001 and .002 (PSU assumed)
C|Accuracy is between .002 and .005 (PSU assumed)
E|Accuracy is between .01 and .02 (PSU assumed)
F|Accuracy is between .02 and .05 (PSU assumed)
H|Accuracy is between .1 and .2 (PSU assumed)
I|Accuracy is greater than .2 (PSU assumed)
P|practical salinity units (PSU)
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S|pre 1982 salinity units (PPT)
U|Unknown salinity units
#
>TABLE|STD_SLCA|Obs Standard for profType='SLCA': SILICATE(SIO4-SI) CONTENT
>FIELD|Standard WHEN Prof_Type = 'SLCA'
0|No value measured
1|Accuracy better the 0.01 (mmol/m**3)
2|Accuracy less the 0.01 (mmol/m**3)
3|sample analysis (mmol/m**3)
4|In situ sensor, unknown accuracy (microg-at/l == mmol/m**3)
5|In situ sensor, accurate to 0.001 (mmol/m**3)
B|Accuracy is between .001 and .002 (mmol/m**3)
C|Accuracy is between .002 and .005 (mmol/m**3)
E|Accuracy is between .01 and .02 (mmol/m**3)
F|Accuracy is between .02 and .05 (mmol/m**3)
H|Accuracy is between .1 and .2 (mmol/m**3)
I|Accuracy is greater than .2 (mmol/m**3)
U|Unknown units
#
>TABLE|STD_SSAL|Obs Standard for profType='SSAL': SALINITY (PRE-1978 DEFINITION)
>FIELD|Standard WHEN Prof_Type = 'SSAL'
0|No salinity measured
1|In situ sensor, accuracy better the 0.02 (PSU assumed)
2|In situ sensor, accuracy less the 0.02 (PSU assumed)
3|sample analysis (PSU assumed)
4|unknown accuracy (PSU assumed)
5|In situ sensor, accurate to 0.001 (PSU assumed)
B|Accuracy is between .001 and .002 (PSU assumed)
C|Accuracy is between .002 and .005 (PSU assumed)
E|Accuracy is between .01 and .02 (PSU assumed)
F|Accuracy is between .02 and .05 (PSU assumed)
H|Accuracy is between .1 and .2 (PSU assumed)
I|Accuracy is greater than .2 (PSU assumed)
P|practical salinity units (PSU)
S|pre 1982 salinity units (PPT)
U|Unknown salinity units
#
>TABLE|STD_SUL$|Obs Standard for profType='SUL$': Sulphate (SO4)
>FIELD|Standard WHEN Prof_Type = 'SUL$'
0|No value measured
1|Accuracy better the 0.01 (mmol/m**3)
2|Accuracy less the 0.01 (mmol/m**3)
3|sample analysis (mmol/m**3)
4|In situ sensor, unknown accuracy (microg-at/l == mmol/m**3)
5|In situ sensor, accurate to 0.001 (mmol/m**3)
B|Accuracy is between .001 and .002 (mmol/m**3)
C|Accuracy is between .002 and .005 (mmol/m**3)
E|Accuracy is between .01 and .02 (mmol/m**3)
F|Accuracy is between .02 and .05 (mmol/m**3)
H|Accuracy is between .1 and .2 (mmol/m**3)
I|Accuracy is greater than .2 (mmol/m**3)
U|Unknown units
#
>TABLE|STD_SVEL|Obs Standard for profType='SVEL': SOUND VELOCITY
>FIELD|Standard WHEN Prof_Type = 'SVEL'
0|No value measured
1|Accuracy better the 0.01 (m/s)
2|Accuracy less the 0.01 (m/s)
3|sample analysis (m/s)
4|In situ sensor, unknown accuracy (m/s)
5|In situ sensor, accurate to 0.001 (m/s)
B|Accuracy is between .001 and .002 (m/s)
C|Accuracy is between .002 and .005 (m/s)
E|Accuracy is between .01 and .02 (m/s)
F|Accuracy is between .02 and .05 (m/s)
H|Accuracy is between .1 and .2 (m/s)
I|Accuracy is greater than .2 (m/s)
U|Unknown units
#
>TABLE|STD_TEMP|Obs Standard for profType='TEMP': Temperature
>FIELD|Standard WHEN Prof_Type = 'TEMP'
0|No temperature measured
1|In situ sensor, precision to 0.01 degrees C
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2|In situ sensor, precision to 0.1 degrees C
4|unknown accuracy (degrees C)
5|In situ sensor, accurate to 0.001 degrees C
B|Accuracy is between .001 and .002 degrees C
C|Accuracy is between .002 and .005 degrees C
E|Accuracy is between .01 and .02 degrees C
F|Accuracy is between .02 and .05 degrees C
H|Accuracy is between .1 and .2 degrees C
I|Accuracy is greater than .2 degrees C
U|Unknown temperature units
#
>TABLE|STD_TPHS|Obs Standard for profType='TPHS': Total Phosphorous (P) Content mmol/m**3
>FIELD|Standard WHEN Prof_Type = 'TPHS'
0|No value measured
1|Accuracy better the 0.01 (mmol/m**3)
2|Accuracy less the 0.01 (mmol/m**3)
3|sample analysis (mmol/m**3)
4|In situ sensor, unknown accuracy (microg-at/l == mmol/m**3)
5|In situ sensor, accurate to 0.001 (mmol/m**3)
B|Accuracy is between .001 and .002 (mmol/m**3)
C|Accuracy is between .002 and .005 (mmol/m**3)
E|Accuracy is between .01 and .02 (mmol/m**3)
F|Accuracy is between .02 and .05 (mmol/m**3)
H|Accuracy is between .1 and .2 (mmol/m**3)
I|Accuracy is greater than .2 (mmol/m**3)
U|Unknown units
#
>TABLE|STD_TRAN|Obs Standard for profType='TRAN': Transmissivity (uncertain units)
>FIELD|Standard WHEN Prof_Type = 'TRAN'
0|No value measured
1|Precision is 0.01 (percent)
2|Precision is 0.1 (percent)
3|Precision is 1.0 (percent)
4|unknown accuracy (percent)
#
>TABLE|STD_USAL|Obs Standard for profType='USAL': UNDEFINED SALINITY (Prac. Sal in or parts/
>FIELD|Standard WHEN Prof_Type = 'USAL'
0|No salinity measured
1|In situ sensor, accuracy better the 0.02 (PSU assumed)
2|In situ sensor, accuracy less the 0.02 (PSU assumed)
3|sample analysis (PSU assumed)
4|unknown accuracy (PSU assumed)
5|In situ sensor, accurate to 0.001 (PSU assumed)
B|Accuracy is between .001 and .002 (PSU assumed)
C|Accuracy is between .002 and .005 (PSU assumed)
E|Accuracy is between .01 and .02 (PSU assumed)
F|Accuracy is between .02 and .05 (PSU assumed)
H|Accuracy is between .1 and .2 (PSU assumed)
I|Accuracy is greater than .2 (PSU assumed)
P|practical salinity units (PSU)
S|pre 1982 salinity units (PPT)
U|Unknown salinity units
#
>END|STD_xxxx
#
#
# The codes in the following group comprise one table for each surface
# code group for which an authority table is available. These tables
# are available in the database table 'gtspp.srfccode_values'.
# New codes can be added to the database by adding to that table.
#
>BEGIN|SC_xxxx|SRFC_Parm|SRFC_Code|Surface code values
>SQL|select code, cur_values, descript from gtspp.srfccode_values order by code, cur_values
>TABLE|SC_ANT$|Surface code values for srfcCode='ANT$': Anemometer type (WMO code table 011
>FIELD|SRFC_Parm WHEN SRFC_Code = 'ANT$'
/|Missing value (coded 15 in BUFR)
0|Cup rotor
00|Cup rotor
01|Propeller rotor
02|Wind Observation through Ambient Noise (WOTAN)
1|Propeller rotor
2|Wind Observation through Ambient Noise (WOTAN)
#
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>TABLE|SC_BCI$|Surface parameter values for pCode='BCI$': Indicator for Method of Current Me
>FIELD|Parm WHEN pCode = 'BCI$'
1|ADCP
2|GEK (Geomagnetic ElectroKinetograph)
3|Ship"s set and drift determined by fixes 3-6 hours apart
4|Ship"s set and drift determined by fixes more than 6 hours but less than 12 hours apart
5|Drift of Buoy
#
>TABLE|SC_BQA$|Surface code values for srfcCode='BQA$': QA in buoy code form
>FIELD|SRFC_Parm WHEN SRFC_Code = 'BQA$'
/|Location quality class information not available
0|Radius >= 1500 m
1|500 m <= Radius < 1500 m
2|250 m <= Radius < 500 m
3|Radius < 250 m
#
>TABLE|SC_BQZ$|Surface code values for srfcCode='BQZ$': Depth correction indicator (WMO code
>FIELD|SRFC_Parm WHEN SRFC_Code = 'BQZ$'
/|Missing value
0|Depths are not corrected
1|Depths are corrected
#
>TABLE|SC_BTP$|Surface code values for srfcCode='BTP$': Buoy type (WMO code 0370)
>FIELD|SRFC_Parm WHEN SRFC_Code = 'BTP$'
//|Missing value
00|Unspecified drifting buoy
01|Standard Lagrangian drifter (Global Drifter Programme)
02|Standard FGGE type drifting buoy (non Lagrangian meteorological drifting buoy)
03|Wind measuring FGGE type drifting buoy (non Lagrangian meteorological drifting buoy)
04|Ice float
05|Reserved
06|Reserved
07|Reserved
08|Unspecified sub-surface float
09|SOFAR
10|ALACE
11|MARVOR
12|RAFOS
13|Reserved
14|Reserved
15|Reserved
16|Unspecified moored buoy
17|Nomad
18|3 metres discus
19|10-12 metres discus
20|ODAS 30 series
21|ATLAS (e.g. TAO area)
22|TRITON
23|Reserved
24|Omnidirectional wave-rider
25|Directional wave-rider
26|Reserved
27|Reserved
28|Reserved
29|Reserved
30|Reserved
31|Reserved
32|Reserved
33|Reserved
34|Reserved
35|Reserved
36|Reserved
37|Reserved
38|Reserved
39|Reserved
40|Reserved
41|Reserved
42|Reserved
43|Reserved
44|Reserved
45|Reserved
46|Reserved
47|Reserved
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48|Reserved
49|Reserved
50|Reserved
51|Reserved
52|Reserved
53|Reserved
54|Reserved
55|Reserved
56|Reserved
57|Reserved
58|Reserved
59|Reserved
60|Reserved
61|Reserved
62|Reserved
#
>TABLE|SC_CLDA|Surface code values for srfcCode='CLDA': Total Cloud Amount (WMO code 2700)
>FIELD|SRFC_Parm WHEN SRFC_Code = 'CLDA'
0|0 (ZERO)
1|1 OKTA OR LESS, BUT NOT ZERO (1/10 OR LESS, BUT NOT ZERO)
2|2 OKTAS 2/10-3/10
3|3 OKTAS 4/10
4|4 OKTAS 5/10
5|5 OKTAS 6/10
6|6 OKTAS 7/10-8/10
7|7 OKTAS OR MORE, BUT NOT 8 OKTAS (9/10 OR MORE, BUT NOT 10/10)
8|8 OKTAS 10/10
9|SKY OBSCURED, OR CLOUD AMOUNT CANNOT BE ESTIMATED
#
>TABLE|SC_CLDT|Surface code values for srfcCode='CLDT': Cloud Type (WMO code 0500)
>FIELD|SRFC_Parm WHEN SRFC_Code = 'CLDT'
/|CLOUD NOT VISIBLE OWING TO DARKNESS, FOG, DUSTSTORM, SANDSTORM, OR OTHER ANALOGOUS PHENOME
0|CIRRUS
1|CIRROCUMULUS
2|CIRROSTRATUS
3|ALTOCUMULUS
4|ALTOSTRATUS
5|NIMBOSTRATUS
6|STRATOCUMULUS
7|STRATUS
8|CUMULUS
9|CUMULONIMBUS
#
>TABLE|SC_DPC$|Surface code values for srfcCode='DPC$': XBT depth correction status
>FIELD|SRFC_Parm WHEN SRFC_Code = 'DPC$'
01|Known XBT Probe Type, Needs Correction
02|Known XBT Probe Type, No Correction
03|Unknown XBT Probe Type, Not enough information, leave alone
04|Known XBT Probe Type, Correction done
05|Unknown XBT Probe Type, Correction done
#
>TABLE|SC_GGCM|Surface parameter values for pCode='GGCM': Indicator for Method of Current Me
>FIELD|Parm WHEN pCode = 'GGCM'
1|ADCP
2|GEK (Geomagnetic ElectroKinetograph)
3|Ship"s set and drift determined by fixes 3-6 hours apart
4|Ship"s set and drift determined by fixes more than 6 hours but less than 12 hours apart
5|Drift of Buoy
#
>TABLE|SC_GGST|Surface code values for srfcCode='GGST': (2QNQLQAQz) QN=WMO-3313: Quality of
>FIELD|SRFC_Parm WHEN SRFC_Code = 'GGST'
200//|(2QNQLQAQZ) QN=0: Good quality (several identical reports have been received); QL=0: F
200/0|(2QNQLQAQZ) QN=0: Good quality (several identical reports have been received); QL=0: F
200/1|(2QNQLQAQZ) QN=0: Good quality (several identical reports have been received); QL=0: F
2000/|(2QNQLQAQZ) QN=0: Good quality (several identical reports have been received); QL=0: F
20000|(2QNQLQAQZ) QN=0: Good quality (several identical reports have been received); QL=0: F
20001|(2QNQLQAQZ) QN=0: Good quality (several identical reports have been received); QL=0: F
2001/|(2QNQLQAQZ) QN=0: Good quality (several identical reports have been received); QL=0: F
20010|(2QNQLQAQZ) QN=0: Good quality (several identical reports have been received); QL=0: F
20011|(2QNQLQAQZ) QN=0: Good quality (several identical reports have been received); QL=0: F
2002/|(2QNQLQAQZ) QN=0: Good quality (several identical reports have been received); QL=0: F
20020|(2QNQLQAQZ) QN=0: Good quality (several identical reports have been received); QL=0: F
20021|(2QNQLQAQZ) QN=0: Good quality (several identical reports have been received); QL=0: F
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2003/|(2QNQLQAQZ) QN=0: Good quality (several identical reports have been received); QL=0: R
20030|(2QNQLQAQZ) QN=0: Good quality (several identical reports have been received); QL=0: R
20031|(2QNQLQAQZ) QN=0: Good quality (several identical reports have been received); QL=0: R
201//|(2QNQLQAQZ) QN=0: Good quality (several identical reports have been received); QL=1: L
201/0|(2QNQLQAQZ) QN=0: Good quality (several identical reports have been received); QL=1: L
201/1|(2QNQLQAQZ) QN=0: Good quality (several identical reports have been received); QL=1: L
2010/|(2QNQLQAQZ) QN=0: Good quality (several identical reports have been received); QL=1: L
20100|(2QNQLQAQZ) QN=0: Good quality (several identical reports have been received); QL=1: L
20101|(2QNQLQAQZ) QN=0: Good quality (several identical reports have been received); QL=1: L
2011/|(2QNQLQAQZ) QN=0: Good quality (several identical reports have been received); QL=1: L
20110|(2QNQLQAQZ) QN=0: Good quality (several identical reports have been received); QL=1: L
20111|(2QNQLQAQZ) QN=0: Good quality (several identical reports have been received); QL=1: L
2012/|(2QNQLQAQZ) QN=0: Good quality (several identical reports have been received); QL=1: L
20120|(2QNQLQAQZ) QN=0: Good quality (several identical reports have been received); QL=1: L
20121|(2QNQLQAQZ) QN=0: Good quality (several identical reports have been received); QL=1: L
2013/|(2QNQLQAQZ) QN=0: Good quality (several identical reports have been received); QL=1: L
20130|(2QNQLQAQZ) QN=0: Good quality (several identical reports have been received); QL=1: L
20131|(2QNQLQAQZ) QN=0: Good quality (several identical reports have been received); QL=1: L
202//|(2QNQLQAQZ) QN=0: Good quality (several identical reports have been received); QL=2: D
202/0|(2QNQLQAQZ) QN=0: Good quality (several identical reports have been received); QL=2: D
202/1|(2QNQLQAQZ) QN=0: Good quality (several identical reports have been received); QL=2: D
2020/|(2QNQLQAQZ) QN=0: Good quality (several identical reports have been received); QL=2: D
20200|(2QNQLQAQZ) QN=0: Good quality (several identical reports have been received); QL=2: D
20201|(2QNQLQAQZ) QN=0: Good quality (several identical reports have been received); QL=2: D
2021/|(2QNQLQAQZ) QN=0: Good quality (several identical reports have been received); QL=2: D
20210|(2QNQLQAQZ) QN=0: Good quality (several identical reports have been received); QL=2: D
20211|(2QNQLQAQZ) QN=0: Good quality (several identical reports have been received); QL=2: D
2022/|(2QNQLQAQZ) QN=0: Good quality (several identical reports have been received); QL=2: D
20220|(2QNQLQAQZ) QN=0: Good quality (several identical reports have been received); QL=2: D
20221|(2QNQLQAQZ) QN=0: Good quality (several identical reports have been received); QL=2: D
2023/|(2QNQLQAQZ) QN=0: Good quality (several identical reports have been received); QL=2: D
20230|(2QNQLQAQZ) QN=0: Good quality (several identical reports have been received); QL=2: D
20231|(2QNQLQAQZ) QN=0: Good quality (several identical reports have been received); QL=2: D
210//|(2QNQLQAQZ) QN=1: Dubious quality (no identical reports); QL=0: Reliable position (dat
210/0|(2QNQLQAQZ) QN=1: Dubious quality (no identical reports); QL=0: Reliable position (dat
210/1|(2QNQLQAQZ) QN=1: Dubious quality (no identical reports); QL=0: Reliable position (dat
2100/|(2QNQLQAQZ) QN=1: Dubious quality (no identical reports); QL=0: Reliable position (dat
21000|(2QNQLQAQZ) QN=1: Dubious quality (no identical reports); QL=0: Reliable position (dat
21001|(2QNQLQAQZ) QN=1: Dubious quality (no identical reports); QL=0: Reliable position (dat
2101/|(2QNQLQAQZ) QN=1: Dubious quality (no identical reports); QL=0: Reliable position (dat
21010|(2QNQLQAQZ) QN=1: Dubious quality (no identical reports); QL=0: Reliable position (dat
21011|(2QNQLQAQZ) QN=1: Dubious quality (no identical reports); QL=0: Reliable position (dat
2102/|(2QNQLQAQZ) QN=1: Dubious quality (no identical reports); QL=0: Reliable position (dat
21020|(2QNQLQAQZ) QN=1: Dubious quality (no identical reports); QL=0: Reliable position (dat
21021|(2QNQLQAQZ) QN=1: Dubious quality (no identical reports); QL=0: Reliable position (dat
2103/|(2QNQLQAQZ) QN=1: Dubious quality (no identical reports); QL=0: Reliable position (dat
21030|(2QNQLQAQZ) QN=1: Dubious quality (no identical reports); QL=0: Reliable position (dat
21031|(2QNQLQAQZ) QN=1: Dubious quality (no identical reports); QL=0: Reliable position (dat
211//|(2QNQLQAQZ) QN=1: Dubious quality (no identical reports); QL=1: Latest known position
211/0|(2QNQLQAQZ) QN=1: Dubious quality (no identical reports); QL=1: Latest known position
211/1|(2QNQLQAQZ) QN=1: Dubious quality (no identical reports); QL=1: Latest known position
2110/|(2QNQLQAQZ) QN=1: Dubious quality (no identical reports); QL=1: Latest known position
21100|(2QNQLQAQZ) QN=1: Dubious quality (no identical reports); QL=1: Latest known position
21101|(2QNQLQAQZ) QN=1: Dubious quality (no identical reports); QL=1: Latest known position
2111/|(2QNQLQAQZ) QN=1: Dubious quality (no identical reports); QL=1: Latest known position
21110|(2QNQLQAQZ) QN=1: Dubious quality (no identical reports); QL=1: Latest known position
21111|(2QNQLQAQZ) QN=1: Dubious quality (no identical reports); QL=1: Latest known position
2112/|(2QNQLQAQZ) QN=1: Dubious quality (no identical reports); QL=1: Latest known position
21120|(2QNQLQAQZ) QN=1: Dubious quality (no identical reports); QL=1: Latest known position
21121|(2QNQLQAQZ) QN=1: Dubious quality (no identical reports); QL=1: Latest known position
2113/|(2QNQLQAQZ) QN=1: Dubious quality (no identical reports); QL=1: Latest known position
21130|(2QNQLQAQZ) QN=1: Dubious quality (no identical reports); QL=1: Latest known position
21131|(2QNQLQAQZ) QN=1: Dubious quality (no identical reports); QL=1: Latest known position
212//|(2QNQLQAQZ) QN=1: Dubious quality (no identical reports); QL=2: Dubious quality (posit
212/0|(2QNQLQAQZ) QN=1: Dubious quality (no identical reports); QL=2: Dubious quality (posit
212/1|(2QNQLQAQZ) QN=1: Dubious quality (no identical reports); QL=2: Dubious quality (posit
2120/|(2QNQLQAQZ) QN=1: Dubious quality (no identical reports); QL=2: Dubious quality (posit
21200|(2QNQLQAQZ) QN=1: Dubious quality (no identical reports); QL=2: Dubious quality (posit
21201|(2QNQLQAQZ) QN=1: Dubious quality (no identical reports); QL=2: Dubious quality (posit
2121/|(2QNQLQAQZ) QN=1: Dubious quality (no identical reports); QL=2: Dubious quality (posit
21210|(2QNQLQAQZ) QN=1: Dubious quality (no identical reports); QL=2: Dubious quality (posit
21211|(2QNQLQAQZ) QN=1: Dubious quality (no identical reports); QL=2: Dubious quality (posit
2122/|(2QNQLQAQZ) QN=1: Dubious quality (no identical reports); QL=2: Dubious quality (posit
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21220|(2QNQLQAQZ) QN=1: Dubious quality (no identical reports); QL=2: Dubious quality (posit
21221|(2QNQLQAQZ) QN=1: Dubious quality (no identical reports); QL=2: Dubious quality (posit
2123/|(2QNQLQAQZ) QN=1: Dubious quality (no identical reports); QL=2: Dubious quality (posit
21230|(2QNQLQAQZ) QN=1: Dubious quality (no identical reports); QL=2: Dubious quality (posit
21231|(2QNQLQAQZ) QN=1: Dubious quality (no identical reports); QL=2: Dubious quality (posit
#
>TABLE|SC_IST$|Surface code values for srfcCode='IST$': Instrument name
>FIELD|SRFC_Parm WHEN SRFC_Code = 'IST$'
AIST (RUS)|CTD: AIST (Russia)
AML 12|STD: APMCRO 12
AML STD12|STD: AML STD-12 (a.k.a. AML CTD-12)
AML STD12+|STD: APPLIED MICROSYSTEMS 12 PLUS
BISSETT-B|CTD: BISSETT-BERMAN, MODEL UNKNOWN
BOT BATHOM|BOTTLE: BATHOMETER (Russia)
BOT BUCKET|BOTTLE: OPEN BUCKET
BOT SEASMP|BOTTLE: WHOI-developed SEA SAMPLER (circa 1950 MBT on bottle rosette)
BOT TMFREE|BOTTLE: TRACE METAL FREE BOTTLE
CHELSEA AQ|CTD: CHELSEA INSTRUMENTS AQUALINK
ED 9071|STD: ED 9071
EG&G MKIII|CTD: EG&G MARK III (EG&G Ocean products)
FSI CTD|CTD: FSI CTD (Falmouth Scientific, Inc.)
FSI ICTD|CTD: FSI ICTD Profiler (Falmouth Scientific, Inc.)
GLDLN UNK|CTD: GUILDLINE, MODEL UNKNOWN
GLDLN WOCE|CTD: GUILDLINE 8737 "WOCE" (WOCE-specifications)
GLDLN8701M|CTD: GUILDLINE 8701 MODIFIED
ISTOK 4|CTD: ISTOK-4 (Russia)
JASUS|CTD: JASUS (by M. Du Chaffaut and T. Labadie)
KROSSBIM|CTD: KROSSBIM STD ROSETTES
NBRNPACODF|CTD: MODIFIED NEIL BROWN, PACODF CTD-O2
NBROWN II|CTD: NEIL BROWN MARK II
NBROWN III|CTD: NEIL BROWN MARK III
NBROWN IV|CTD: NEIL BROWN MARK IV
NBROWN SMT|CTD: NEIL BROWN SMART CTD
NBROWN UNK|CTD: NEIL BROWN, MODEL UNKNOWN
NBROWN V|CTD: NEIL BROWN MARK V
NBRWN DRCM|CTD: NEIL BROWN DRCM
NBRWN IIIB|CTD: NEIL BROWN MARK IIIB
OCEAN CASS|CTD: OCEAN CASSETTE
ODE 302|CTD: OCEAN DATA EQUIPMENT (ODE) 302 CSTD
OM-87|CTD: OM-87 (Institut fuer Meereskunde Warnemuende, Germany)
OTS-1200|CTD: MEERESTECHNIK OTS-1200
PLES C9040|CTD: PLESSEY 9040
PLES C9041|CTD: PLESSEY 9041
PLES S9040|STD: PLESSEY 9040
PLES S9041|STD: PLESSEY 9041
PLESS 8400|STD: PLESSEY 8400
PLESS 9006|STD: PLESSEY 9006
PLESS 9060|CTD: PLESSEY 9060
PLESS 9400|CTD: PLESSEY 9400
PLESS UNK|CTD: PLESSEY, MODEL UNKNOWN
PLESS/GRUN|CTD: PLESSEY/GRUNDY, MODEL UNKNOWN
SALIN GM65|STD: SALINOMETER GM 65
SB19SEACAT|CTD: SBE 19 SEACAT profiler (Sea-Bird Electronics, Inc.)
SBE 102|CTD: SBE 102 (Sea-Bird Electronics, Inc.)
SBE 25|CTD: SBE 25 SEALOGGER (Sea-Bird Electronics, Inc.)
SBE 9|CTD: SBE 9 (Deep ocean precision CTD, Sea-Bird Electronics, Inc.)
SBE 911|CTD: SBE 911 (Sea-Bird Electronics, Inc.)
SBE 911+|CTD: SBE 911 PLUS (Sea-Bird Electronics, Inc.)
SBE 9S|CTD: SBE 9s (Sea-Bird Electronics, Inc.)
SBE UNK|CTD: Sea-Bird Electronics, Inc., MODEL UNKNOWN
SEACAT UNK|CTD: SEACAT, TYPE UNKNOWN (Sea-Bird Electronics, Inc.)
SIPX AXCTD|XCTD: AXCTD (SIPPICAN)
SIPX DEEP|XCTD: DEEP (SIPPICAN)
SIPX STD|XCTD: STANDARD (SIPPICAN)
SIPX SXCTD|XCTD: SXCTD (SIPPICAN)
THERM CHN|THERMISTER CHAIN
UNK|UNKNOWN
UNK BOTTLE|BOTTLE: TYPE UNKNOWN
UNK CTD|CTD: TYPE UNKNOWN
UNK MBT|MBT: TYPE UNKNOWN
UNK SCTD|XCTD: TYPE UNKNOWN
UNK STD|STD: TYPE UNKNOWN
UNK UWAY|UNDERWAY: UNDERWAY DATA COLLECTION INSTRUMENT, TYPE UNKNOWN
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UWAY DRTAG|UNDERWAY: MK3 data recording tag (Wildlife Computers) mounted on elephant seal
UWAY SBE21|UNDERWAY: SEACAT Thermosalinograph SBE 21 (Sea-Bird Electronics, Inc.)
UWAY TSUNK|UNDERWAY: THERMOSALINOGRAPH, UNKNOWN BRAND AND MODEL
ZOND-BATH|CTD: ZOND-BATHOMETER
ZULLUG HPT|CTD: HYDROPOLYTESTER/NEPHELOMETER ZULLIG
#
>TABLE|SC_MRT#|Surface code values for srfcCode='MRT#': Reference Type (Instrument for refer
>FIELD|SRFC_Parm WHEN SRFC_Code = 'MRT#'
1|BUCKET
10|ENGINE INTAKE
2|INJECTION, OR UNVERIFIED BUCKET NOTATION, OR UNKNOWN
3|NANSEN CAST (REVERSING THERMOMETER)
4|THERMOGRAPH
5|SPECIAL CALIBRATION THERMOMETER OR EQUIPMENT
6|BT
7|STD
9|HULL CONTACT SENSOR
#
>TABLE|SC_PEQ$|Surface code values for srfcCode='PEQ$': XBT fall rate equation (WMO code 177
>FIELD|SRFC_Parm WHEN SRFC_Code = 'PEQ$'
001|Sippican T-4, Coefficient a 6.472, Coefficient b -2.16
002|Sippican T-4, Coefficient a 6.691, Coefficient b-2.25
011|Sippican T-5, Coefficient a 6.828, Coefficient b -1.82
021|Sippican Fast Deep, Coefficient a , 6.346, Coefficient b -1.82
031|Sippican T-6, Coefficient a 6.472, Coefficient b -2.16
032|Sippican T-6, Coefficient a 6.691, Coefficient b -2.25
041|Sippican T-7, Coefficient a 6.472, Coefficient b -2.16
042|Sippican T-7, Coefficient a 6.691, Coefficient b -2.25
051|Sippican Deep Blue, Coefficient a 6.472, Coefficient b -2.16
052|Sippican Deep Blue, Coefficient a 6.691, Coefficient b -2.25
061|Sippican T-10, Coefficient a 6.472, Coefficient b -2.16
071|Sippican T-11, Coefficient a 1.779, Coefficient b -0.255
201|TSK T-4, Coefficient a 6.472, Coefficient b -2.16
202|TSK T-4, Coefficient a 6.691, Coefficient b -2.25
211|TSK T-6, Coefficient a 6.472, Coefficient b -2.16
212|TSK T-6, Coefficient a 6.691, Coefficient b -2.25
221|TSK T-7, Coefficient a 6.472, Coefficient b -2.16
222|TSK T-7, Coefficient a 6.691, Coefficient b -2.25
231|TSK T-5, Coefficient a 6.828, Coefficient b -1.82
241|TSK T-10, Coefficient a 6.301, Coefficient b -2.16
251|TSK Deep Blue, Coefficient a 6.472, Coefficient b -2.16
252|TSK Deep Blue, Coefficient a 6.691, Coefficient b -2.25
261|TSK Deep AXBT
401|Sparton XBT-1, Coefficient a 6.301, Coefficient b -2.16
411|Sparton XBT-3, Coefficient a 5.861, Coefficient b -0.0904
421|Sparton XBT-4, Coefficient a 6.472, Coefficient b -2.16
431|Sparton XBT-5, Coefficient a 6.828, Coefficient b -1.182
441|Sparton XBT-5DB, Coefficient a 6.828, Coefficient b -1.182
451|Sparton XBT-6, Coefficient a 6.472, Coefficient b -2.16
461|Sparton XBT-7, Coefficient a 6.472, Coefficient b -2.16
462|Sparton XBT-7, Coefficient a 6.705, Coefficient b -2.28
471|Sparton XBT-7DB, Coefficient a 6.472, Coefficient b -2.16
481|Sparton XBT-10, Coefficient a 6.301, Coefficient b -2.16
491|Sparton XBT-20, Coefficient a 6.472, Coefficient b -2.16
501|Sparton XBT-20DB, Coefficient a 6.472, Coefficient b -2.16
700|Sippican XCTD standard
710|Sippican XCTD deep
720|Sippican AXCTD
730|Sippican SXCTD
741|TSK XCTD
751|TSK AXCTD
760|
761|Sparton XCTD standard, Coefficient a 3.38, Coefficient b -0.214
800|Mechanical XBT
810|Hydrocast
820|Thermistor Chain
830|CTD
831|CTD - P-ALACE float
840|P-ALACE float, PROVOR, no conductivity sensor
841|P-ALACE float, PROVOR, Seabird conductivity sensor
842|P-ALACE float, PROVOR, FSI conductivity sensor
845|P-ALACE float, Web Research, no conductivity sensor
846|P-ALACE float, Web Research, Seabird conductivity sensor
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847|P-ALACE float, Web Research, FSI conductivity sensor
850|P-ALACE float, SOLO, no conductivity sensor
851|P-ALACE float, SOLO, Seabird conductivity sensor
852|P-ALACE float, SOLO, FSI conductivity sensor
855|Profiling float, NINJA, no conductivity sensor
856|Profiling float, NINJA, SBE conductivity sensor
857|Profiling float, NINJA, FSI conductivity sensor
858|Profiling float, NINJA, TSK conductivity sensor
900|Sippican T-12 XBT, Coefficient a 9.727, Coefficient b -0.0000473
999|
#
>TABLE|SC_PRT$|Surface code values for srfcCode='PRT$': XBT probe type
>FIELD|SRFC_Parm WHEN SRFC_Code = 'PRT$'
MHI|XBT (MHI,Academy of Science, Ukraine)
SIP ST-1|Sippican SSXBT, Model ST-1
SIP T-04|Sippican T-4
SIP T-05|Sippican T-5
SIP T-06|Sippican T-6
SIP T-07|Sippican T-7
SIP T-10|Sippican T-10
SIP T-11|Sippican T-11
SIP T-DB|Sippican T-Deep Blue
SIP T-FD|Sippican T-Fast Deep
SPA T-01|Sparton XBT-1
SPA T-03|Sparton XBT-3
SPA T-04|Sparton XBT-4
SPA T-05|Sparton XBT-5
SPA T-05DB|Sparton XBT-5 Deep Blue
SPA T-06|Sparton XBT-6
SPA T-07|Sparton XBT-7
SPA T-10|Sparton XBT-10
SPA T-20|Sparton XBT-20
TSK T-04|TSK T-4
TSK T-05|TSK T-5
TSK T-06|TSK T-6
TSK T-07|TSK T-7
TSK T-10|TSK T-10
UNK|Unknown
UNK DBT|DBT Type Unknown
UNK T-04|Unknown T-4
UNK T-05|Unknown T-5
UNK T-06|Unknown T-6
UNK T-07|Unknown T-7
UNK T-10|Unknown T-10
UNK T-11|Unknown T-11
UNK T-DB|Unknown Deep Blue
UNK T-FD|Unknown Fast Deep
UNK XBT|XBT Type Unknown
#
>TABLE|SC_RCT#|Surface code values for srfcCode='RCT#': XBT recorder type (NODC-OCL modifica
>FIELD|SRFC_Parm WHEN SRFC_Code = 'RCT#'
01|Sippican Strip Chart Recorder
02|Sippican MK2A/SSQ-61
03|Sippican MK-9
04|Sippican AN/BHQ-7/MK8
05|Sippican MK-12
06|MK-5 (NOT Sippican MK-21 as in WMO 4770)
07|MK-8 Linear Recorder (NOT assigned in WMO 4770)
10|Sparton SOC BT/SV Processor Model 10011
11|Lockheed-Sanders Model OL5005
20|ARGOS XBT-ST
21|CLS-ARGOS/Protecno XBT-ST Model-1
22|CLS-ARGOS/Protecno XBT-ST Model-2
30|BATHY Systems SA-810
31|Scripps Metrobyte Controller
32|Murayama Denki Z-60-16 III
33|Murayama Denki Z-60-16 II
34|Protecno ETSM2
35|Nautilus Marine Service NMS-XBT
40|TSK MK-2A
41|TSK MK-2S
42|TSK MK-30
43|TSK MK-30N
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45|TSK MK-100
46|TSK MK-130 Compatible recorder for both XBT and XCTD
48|TSK AXBT RECEIVER MK-300
50|JMA ASTOS
60|ARGOS communications, sampling on up transit
61|ARGOS communications, sampling on down transit
62|Orbcomm communications, sampling on up transit
63|Orbcomm communications, sampling on down transit
99|Unknown
#
>TABLE|SC_RCT$|Surface code values for srfcCode='RCT$': XBT recorder type (WMO code 4770)
>FIELD|SRFC_Parm WHEN SRFC_Code = 'RCT$'
01|Sippican Strip Chart Recorder
02|Sippican MK2A/SSQ-61
03|Sippican MK-9
04|Sippican AN/BHQ-7/MK8
05|Sippican MK-12
06|Sippican MK-21
10|Sparton SOC BT/SV Processor Model 10011
11|Lockheed-Sanders Model OL5005
20|ARGOS XBT-ST
21|CLS-ARGOS/Protecno XBT-ST Model-1
22|CLS-ARGOS/Protecno XBT-ST Model-2
30|BATHY Systems SA-810
31|Scripps Metrobyte Controller
32|Murayama Denki Z-60-16 III
33|Murayama Denki Z-60-16 II
34|Protecno ETSM2
35|Nautilus Marine Service NMS-XBT
40|TSK MK-2A
41|TSK MK-2S
42|TSK MK-30
43|TSK MK-30N
45|TSK MK-100
46|TSK MK-130 Compatible recorder for both XBT and XCTD
48|TSK AXBT RECEIVER MK-300
50|JMA ASTOS
60|ARGOS communications, sampling on up transit
61|ARGOS communications, sampling on down transit
62|Orbcomm communications, sampling on up transit
63|Orbcomm communications, sampling on down transit
99|Unknown
#
>TABLE|SC_SEAS|Surface code values for srfcCode='SEAS': Sea State (WMO code 3700)
>FIELD|SRFC_Parm WHEN SRFC_Code = 'SEAS'
0|CALM-GLASSY 0 FT (0 METERS)
1|CALM-RIPPLED 0-1/3 FT (0-.1METERS)
2|SMOOTH-WAVELET 1/3-1 2/3 FT (.1-.5 METERS)
3|SLIGHT 1 2/3 - 4 FT(.5-1.25 METERS)
4|MODERATE 4-8 FT(1.25-2.50 METERS)
5|ROUGH 8-13 FT(2.50-4.0 METERS)
6|VERY ROUGH 13-20 FT(4-6 METERS)
7|HIGH 20-30 FT(6-9 METERS)
8|VERY HIGH 30-45 FT(9-14 METERS)
9|PHENOMENAL >45 FT (>14 METERS)
#
>TABLE|SC_STAT|Surface code values for srfcCode='STAT': GTSPP STATUS
>FIELD|SRFC_Parm WHEN SRFC_Code = 'STAT'
1|Real time data
2|Real time data with Science QC
3|Delayed mode data
4|Delayed mode data with Science QC
#
>TABLE|SC_VDIC|Surface code values for srfcCode='VDIC': Wave direction (WMO code 0877)
>FIELD|SRFC_Parm WHEN SRFC_Code = 'VDIC'
00|CALM (NO WAVES-NO MOTION)
01|5 DEGREES - 14 DEGREES
02|15 DEGREES - 24 DEGREES
03|25 DEGREES - 34 DEGREES
04|35 DEGREES - 44 DEGREES
05|45 DEGREES - 54 DEGREES
06|55 DEGREES - 64 DEGREES
07|65 DEGREES - 74 DEGREES
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08|75 DEGREES - 84 DEGREES
09|85 DEGREES - 94 DEGREES
10|95 DEGREES - 104 DEGREES
11|105 DEGREES - 114 DEGREES
12|115 DEGREES - 124 DEGREES
13|125 DEGREES - 134 DEGREES
14|135 DEGREES - 144 DEGREES
15|145 DEGREES - 154 DEGREES
16|155 DEGREES - 164 DEGREES
17|165 DEGREES - 174 DEGREES
18|175 DEGREES - 184 DEGREES
19|185 DEGREES - 194 DEGREES
20|195 DEGREES - 204 DEGREES
21|205 DEGREES - 214 DEGREES
22|215 DEGREES - 224 DEGREES
23|225 DEGREES - 234 DEGREES
24|235 DEGREES - 244 DEGREES
25|245 DEGREES - 254 DEGREES
26|255 DEGREES - 264 DEGREES
27|265 DEGREES - 274 DEGREES
28|275 DEGREES - 284 DEGREES
29|285 DEGREES - 294 DEGREES
30|295 DEGREES - 304 DEGREES
31|305 DEGREES - 314 DEGREES
32|315 DEGREES - 324 DEGREES
33|325 DEGREES - 334 DEGREES
34|335 DEGREES - 344 DEGREES
35|345 DEGREES - 354 DEGREES
36|355 DEGREES - 4 DEGREES
99|Variable or all directions, or unknown or waves confused, direction indeterminate
#
>TABLE|SC_VIS#|Surface code values for srfcCode='VIS#': Horizontal Visibility (WMO code 4300
>FIELD|SRFC_Parm WHEN SRFC_Code = 'VIS#'
0|Less than 50 m
1|50 - 200 m
2|200 - 500 m
3|500 - 1000 m
4|1 - 2 km
5|2 - 4 km
6|4 - 10 km
7|10 - 20 km
8|20 - 50 km
9|50 km or more
#
>TABLE|SC_VISB|Surface code values for srfcCode='VISB': Horizontal Visibility (WMO code 4300
>FIELD|SRFC_Parm WHEN SRFC_Code = 'VISB'
0|Less than 50 m
1|50 - 200 m
2|200 - 500 m
3|500 - 1000 m
4|1 - 2 km
5|2 - 4 km
6|4 - 10 km
7|10 - 20 km
8|20 - 50 km
9|50 km or more
#
>TABLE|SC_VISC|Surface code values for srfcCode='VISC': Horizontal Visibility (WMO code 4300
>FIELD|SRFC_Parm WHEN SRFC_Code = 'VISC'
0|Less than 50 m
1|50 - 200 m
2|200 - 500 m
3|500 - 1000 m
4|1 - 2 km
5|2 - 4 km
6|4 - 10 km
7|10 - 20 km
8|20 - 50 km
9|50 km or more
#
>TABLE|SC_VSB#|Surface code values for srfcCode='VSB#': Horizontal Visibility (WMO code 4300
>FIELD|SRFC_Parm WHEN SRFC_Code = 'VSB#'
0|Less than 50 m
```

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1|50 - 200 m
2|200 - 500 m
3|500 - 1000 m
4|1 - 2 km
5|2 - 4 km
6|4 - 10 km
7|10 - 20 km
8|20 - 50 km
9|50 km or more
#
>TABLE|SC_WCL$|Surface code values for srfcCode='WCL$': Water color (NODC-OCL extension of F
>FIELD|SRFC_Parm WHEN SRFC_Code = 'WCL$'
31|GREEN
32|BLUE
33|GREY
34|RED
35|CHALKY
36|BROWN
37|LUMINESCENT
#
>TABLE|SC_WCLR|Surface code values for srfcCode='WCLR': Water colour (Forel-Ule scale)
>FIELD|SRFC_Parm WHEN SRFC_Code = 'WCLR'
01|PERCENT YELLOW 0  FOREL-ULE SCALE I
02|PERCENT YELLOW 2  FOREL-ULE SCALE II
03|PERCENT YELLOW 5  FOREL-ULE SCALE III
04|PERCENT YELLOW 9  FOREL-ULE SCALE IV
05|PERCENT YELLOW 14  FOREL-ULE SCALE V
06|PERCENT YELLOW 20  FOREL-ULE SCALE VI
07|PERCENT YELLOW 27  FOREL-ULE SCALE VII
08|PERCENT YELLOW 35  FOREL-ULE SCALE VIII
09|PERCENT YELLOW 44  FOREL-ULE SCALE IX
10|PERCENT YELLOW 54  FOREL-ULE SCALE X
11|PERCENT YELLOW 65  PERCENT BROWN 0  FOREL-ULE SCALE XI
12|PERCENT BROWN 2  FOREL-ULE SCALE XII
13|PERCENT BROWN 5  FOREL-ULE SCALE XIII
14|PERCENT BROWN 9  FOREL-ULE SCALE XIV
15|PERCENT BROWN 14  FOREL-ULE SCALE XV
16|PERCENT BROWN 20  FOREL-ULE SCALE XVI
17|PERCENT BROWN 27 FOREL-ULE SCALE XVII
18|PERCENT BROWN 35  FOREL-ULE SCALE XVIII
19|PERCENT BROWN 44  FOREL-ULE SCALE XIX
20|PERCENT BROWN 54  FOREL-ULE SCALE XX
21|PERCENT BROWN 65  FOREL-ULE SCALE XXI
#
>TABLE|SC_WDC$|Surface code values for srfcCode='WDC$': Wind direction code (octants)
>FIELD|SRFC_Parm WHEN SRFC_Code = 'WDC$'
0|Calm
1|N = 338-22 degrees true
2|NE = 23-67 degrees true
3|E = 68-112 degrees true
4|SE = 113-157 degrees true
5|S = 158-202 degrees true
6|SW = 203-247 degrees true
7|W = 248-292 degrees true
8|NW = 293-337 degrees true
9|No observation
#
>TABLE|SC_WDIC|Surface code values for srfcCode='WDIC': Wind direction (WMO code 0877)
>FIELD|SRFC_Parm WHEN SRFC_Code = 'WDIC'
00|Calm (no waves)
01|5 - 14 degrees
02|15 - 24 degrees
03|25 - 34 degrees
04|35 - 44 degrees
05|45 - 54 degrees
06|55 - 64 degrees
07|65 - 74 degrees
08|75 - 84 degrees
09|85 - 94 degrees
10|95 - 104 degrees
11|105 - 114 degrees
12|115 - 124 degrees
13|125 - 134 degrees
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14|135 - 144 degrees
15|145 - 154 degrees
16|155 - 164 degrees
17|165 - 174 degrees
18|175 - 184 degrees
19|185 - 194 degrees
20|195 - 204 degrees
21|205 - 214 degrees
22|215 - 224 degrees
23|225 - 234 degrees
24|235 - 244 degrees
25|245 - 254 degrees
26|255 - 264 degrees
27|265 - 274 degrees
28|275 - 284 degrees
29|285 - 294 degrees
30|295 - 304 degrees
31|305 - 314 degrees
32|315 - 324 degrees
33|325 - 334 degrees
34|335 - 344 degrees
35|345 - 354 degrees
36|355 - 4 degrees
99|Variable or all directions, or unknown
#
>TABLE|SC_WDR#|Surface code values for srfcCode='WDR#': Wind direction (WMO code 0877 / 0885
>FIELD|SRFC_Parm WHEN SRFC_Code = 'WDR#'
00|Calm (no waves)
01|5 - 14 degrees
02|15 - 24 degrees
03|25 - 34 degrees
04|35 - 44 degrees
05|45 - 54 degrees
06|55 - 64 degrees
07|65 - 74 degrees
08|75 - 84 degrees
09|85 - 94 degrees
10|95 - 104 degrees
11|105 - 114 degrees
12|115 - 124 degrees
13|125 - 134 degrees
14|135 - 144 degrees
15|145 - 154 degrees
16|155 - 164 degrees
17|165 - 174 degrees
18|175 - 184 degrees
19|185 - 194 degrees
20|195 - 204 degrees
21|205 - 214 degrees
22|215 - 224 degrees
23|225 - 234 degrees
24|235 - 244 degrees
25|245 - 254 degrees
26|255 - 264 degrees
27|265 - 274 degrees
28|275 - 284 degrees
29|285 - 294 degrees
30|295 - 304 degrees
31|305 - 314 degrees
32|315 - 324 degrees
33|325 - 334 degrees
34|335 - 344 degrees
35|345 - 354 degrees
36|355 - 4 degrees
49|Waves confused, direction indeterminate (waves equal to or less than 4 3/4 metres
99|WAVES CONFUSED, DIRECTION INDETERMINATE (WAVES GEATER THAN 4 3/4 METERS) WINDS VARIABLE,C
#
>TABLE|SC_WFBS|Surface code values for srfcCode='WFBS': Wind Force on Beaufort Scale
>FIELD|SRFC_Parm WHEN SRFC_Code = 'WFBS'
0|CALM MEAN VELOCITY IN KNOTS <1 IN METERS/SEC 0-0.2 IN KM/H <1 IN M.P.H. <1 /WAVE HT < .25
1|LIGHT AIR  MEAN VELOCITY IN KNOTS 1-3  METERS/SEC 0.3-1.5 KM/H 1-5  M.P.H. 1-3 /WAVE HT= .
2|LIGHT BREEZE  MEAN VELOCITY IN KNOTS 4-6  METERS/SEC 1.6-3.3 KM/H 6-11  M.P.H. 4-7 /WAVE H
3|GENTLE BREEZE  MEAN VELOCITY IN KNOTS 7-10  METERS/SEC 3.4-5.4 KM/H 12-19  M.P.H. 8-12 /WA
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4|MODERATE BREEZE  MEAN VELOCITY IN KNOTS 11-16  METERS/SEC 5.5-7.9 KM/H 20-28  M.P.H. 13-18
5|FRESH BREEZE  MEAN VELOCITY IN KNOTS 17-21  METERS/SEC 8.0-10.7 KM/H 29-38  M.P.H. 19-24/W
6|STRONG BREEZE  MEAN VELOCITY IN KNOTS 22-27  METERS/SEC 10.8-13.8 KM/H 39-49  M.P.H. 25-31
7|NEAR GALE  MEAN VELOCITY IN KNOTS 28-33  METERS/SEC 13.9-17.1 KM/H 50-61  M.P.H. 32-38/WAV
8|GALE  MEAN VELOCITY IN KNOTS 34-40  METERS/SEC 17.2-20.7 KM/H 62-74  M.P.H. 39-46 /WAVE HT
9|STRONG GALE  MEAN VELOCITY IN KNOTS 41-47  METERS/SEC 20.8-24.4 KM/H 75-88  M.P.H. 47-54/W
#
>TABLE|SC_WSC$|Surface code values for srfcCode='WSC$': Wind force code (code translates to
>FIELD|SRFC_Parm WHEN SRFC_Code = 'WSC$'
0|Calm
1|1-3 knots
2|4-6 knots
3|7-10 knots
4|11-16 knots
5|17-21 knots
6|22-27 knots
7|28-33 knots
8|34+ knots
9|No observation
#
>TABLE|SC_WVH#|Surface code values for srfcCode='WVH#': Wave height (WMO Code Table 1555)
>FIELD|SRFC_Parm WHEN SRFC_Code = 'WVH#'
0|LESS THAN 1/4 M (1 FT) OR 5 M (16 FT)
1|1/2 M (1 1/2 FT) OR 5 1/2 M (17 1/2 FT)
2|1 M (3 FT) OR 6 M (19 FT)
3|1 1/2 M (5 FT) OR 6 1/2 M (21 FT)
4|2 M (6 1/2 FT) OR 7 M (22 1/2 FT)
5|2 1/2 M (8 FT) OR 7 1/2 M (24 FT)
6|3 M (9 1/2 FT) OR 8 M (25 1/2 FT)
7|3 1/2 M (11 FT) OR 8 1/2 M (27 FT)
8|4 M (13 FT) OR 9 M (29 FT)
9|4 1/2 M (14 FT) OR 9 1/2 M (30 1/2 FT)
X|HEIGHT NOT DETERMINED
#
>TABLE|SC_WVH$|Surface code values for srfcCode='WVH$': Wave height (NODC OCL Code)
>FIELD|SRFC_Parm WHEN SRFC_Code = 'WVH$'
00|calm
01|0.5 meter
02|1 meter
03|1.5 meter
04|2 meter
05|2.5 meter
06|3 meter
07|3.5 meter
08|4 meter
09|4.5 meter
10|5 meter
11|5.5 meter
12|6 meter
13|6.5 meter
14|7 meter
15|7.5 meter
16|8 meter
17|8.5 meter
18|9 meter
19|9.5 meter
20|10 meter
21|10.5 meter
22|11 meter
23|11.5 meter
24|12 meter
25|12.5 meter
26|13 meter
27|greater than 13 meters
#
>TABLE|SC_WVP#|Surface code values for srfcCode='WVP#': Wave period (WMO code 3155)
>FIELD|SRFC_Parm WHEN SRFC_Code = 'WVP#'
/|Calm or period not determined
0|10 seconds
1|11 seconds
2|12 seconds
3|13 seconds
4|14 seconds or more
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5|5 seconds or less
6|6 seconds
7|7 seconds
8|8 seconds
9|9 seconds
#
>TABLE|SC_WVP$|Surface code values for srfcCode='WVP$': Wave period (NODC code 0378)
>FIELD|SRFC_Parm WHEN SRFC_Code = 'WVP$'
0|20 OR 21 SECONDS
1|OVER 21 SECONDS
2|5 SECONDS OR LESS
3|6 OR 7 SECONDS
4|8 OR 9 SECONDS
5|10 OR 11 SECONDS
6|12 OR 13 SECONDS
7|14 OR 15 SECONDS
8|16 OR 17 SECONDS
9|18 OR 19 SECONDS
X|CALM, OR PERIOD NOT DETERMINED
#
>TABLE|SC_WVR#|Surface code values for srfcCode='WVR#': Wave direction (WMO code 0877 / 0885
>FIELD|SRFC_Parm WHEN SRFC_Code = 'WVR#'
00|Calm (no waves)
01|5 - 14 degrees
02|15 - 24 degrees
03|25 - 34 degrees
04|35 - 44 degrees
05|45 - 54 degrees
06|55 - 64 degrees
07|65 - 74 degrees
08|75 - 84 degrees
09|85 - 94 degrees
10|95 - 104 degrees
11|105 - 114 degrees
12|115 - 124 degrees
13|125 - 134 degrees
14|135 - 144 degrees
15|145 - 154 degrees
16|155 - 164 degrees
17|165 - 174 degrees
18|175 - 184 degrees
19|185 - 194 degrees
20|195 - 204 degrees
21|205 - 214 degrees
22|215 - 224 degrees
23|225 - 234 degrees
24|235 - 244 degrees
25|245 - 254 degrees
26|255 - 264 degrees
27|265 - 274 degrees
28|275 - 284 degrees
29|285 - 294 degrees
30|295 - 304 degrees
31|305 - 314 degrees
32|315 - 324 degrees
33|325 - 334 degrees
34|335 - 344 degrees
35|345 - 354 degrees
36|355 - 4 degrees
49|Waves confused, direction indeterminate (waves equal to or less than 4 3/4 metres
99|WAVES CONFUSED, DIRECTION INDETERMINATE (WAVES GEATER THAN 4 3/4 METERS) WINDS VARIABLE,C
#
>TABLE|SC_WWC#|Surface code values for srfcCode='WWC#': Present weather (WMO code 4501)
>FIELD|SRFC_Parm WHEN SRFC_Code = 'WWC#'
0|CLEAR (NO CLOUD AT ANY LEVEL)
1|PARTLY CLOUDY (SCATTERED OR BROKED)
2|CONTINUOUS LAYER(S) OF CLOUD(S)
3|SANDSTORM, DUSTSTORM, OR BLOWING SNOW
4|FOG, THICK DUST OR HAZE
5|DRIZZLE
6|RAIN
7|SNOW, OR RAIN AND SNOW MIXED
8|SHOWER(S)
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9|THUNDERSTORM(S)
#
>TABLE|SC_WWCD|Surface code values for srfcCode='WWCD': Present Weather (WMO Code 4677)
>FIELD|SRFC_Parm WHEN SRFC_Code = 'WWCD'
00|CLOUD DEVELOP. NOT OBSERVED OR NOT OBSERVABLE-CHAR. CHANGE OF THE STATE OF SKY DURING PAS
01|CLOUDS GENERALLY DISSOLVING OR BECOMING LESS DEVELOPED-CHAR. CHANGE OF STATE OF SKY DURIN
02|STATE OF SKY ON THE WHOLE UNCHANGED-CHAR. CHANGE OF THE STATE OF SKY DURING THE PAST HOUR
03|CLOUDS GENERALLY FORMING OR DEVELOPING-CHAR. CHANGE OF THE STATE OF SKY DURING THE PAST H
04|VISIBILTY REDUCED BY SMOKE, E.G. VELDT OF FOREST FIRES, INDUSTRIAL SMOKE OR VOLCANIC ASHE
05|HAZE
06|WIDESPREAD DUST IN SUSPENSION IN THE AIR, RAISED BY WIND AT OR NEAR THE STATION AT TIME O
07|DUST OR SAND RAISED BY WIND AT OR NEAR THE STATION AT THE TIME OF OBSERVATION, BUT NO WEL
08|WELL DEVELOP. DUST WHIRL(S) OR SAND WHIRL(S) SEEN AT OR NEAR STATION DURING THE PRECEDING
09|DUSTSTORM OR SANDSTORM WITHIN SIGHT AT THE TIME OF OBSERVA., OR AT STATION DURING PRECEDI
10|MIST
11|PATCHES OF SHALLOW FOG OR ICE FOG AT THE STATION, WHETHER ON LAND OR SEA, NOT DEEPER THAN
12|MORE OR LESS CONTINUOUS SHALLOW FOG OR ICE FOG AT THE STATION, WHETHER ON LAND OR SEA, NO
13|LIGHTNING VISIBLE, NO THUNDER HEARD
14|PRECIPITATION WITHIN SIGHT, NOT REACHING THE GROUND OR THE SURFACE OF THE SEA
15|PRECIPITATION WITHIN SIGHT, REACHING THE GROUND OR THE SURFACE OF THE SEA, BUT DISTANT(I.
16|PREC. WITHIN SIGHT, REACHING GROUND OR SURFACE OF THE SEA, NEAR TO, BUT NOT AT THE STATIO
17|THUNDERSTORM, BUT NO PRECIPITATION AT THE TIME OF OBSERVATION
18|SQUALLS AT OR WITHIN SIGHT OF THE STATION DURING THE PRECEDING HOUR OR AT TIME OF OBSERVA
19|FUNNEL CLOUD(S) AT OR WITHIN SIGHT OF STATION DURING PRECEDING HOUR OR AT THE TIME OF OBS
20|DRIZZLE (NOT FREEZING) OR SNOW GRAINS - NOT FALLING AS SHOWER(S)
21|RAIN (NOT FREEZING) - NOT FALLING AS SHOWER(S)
22|SNOW - NOT FALLING AS SHOWER(S)
23|RAIN AND SNOW OR ICE PELLETS, TYPE (A) - NOT FALLING AS SHOWER(S)
24|FREEZING DRIZZLE OR FREEZING RAIN - NOT FALLING AS SHOWER(S)
25|SHOWER(S) OF RAIN - NOT FALLING AS SHOWER(S)
26|SHOWER(S) OF SNOW, OR OF RAIN AND SNOW - NOT FALLING AS SHOWER(S)
27|SHOWER(S) OF HAIL, OR OF RAIN AND HAIL - NOT FALLING AS SHOWER(S)
28|FOG OR ICE FOG - NOT FALLING AS SHOWER(S)
29|THUNDERSTORM (WITH OR WITHOUT PRECIPITATION)
30|SLIGHT OR MODERATE DUSTSTORM OR SANDSTORM-HAS DECREASED DURING THE PRECEDING HOUR
31|SLIGHT OR MODERATE DUSTSTORM OR SANDSTORM-NO APPRECIABLE CHANGE DURING THE PRECEDING HOUR
32|SLIGHT OR MODERATE DUSTSTORM OR SANDSTORM-HAS BEGUN OR HAS INCREASED DURING THE PRECEDING
33|SEVERE DUSTSTORM OR SANDSTORM-HAS DECREASED DURING THE PRECEDING HOUR
34|SEVERE DUSTSTORM OR SANDSTORM-NO APPRECIABLE CHANGE DURING THE PRECEDING HOUR
35|SEVERE DUSTSTORM OR SANDSTORM-HAS BEGUN OR HAS INCREASED DURING THE PRECEDING HOUR
36|SLIGHT OR MODERATE BLOWING SNOW-GENERALLY LOW (BELOW EYE LEVEL)
37|HEAVY DRIFTING SNOW-GENERALLY LOW (BELOW EYE LEVEL)
38|SLIGHT OR MODERATE BLOWING SNOW-GENERALLY HIGH (ABOVE EYE LEVEL)
39|HEAVY BLOWING SNOW-GENERALLY HIGH (ABOVE EYE LEVEL)
40|FOG OR ICE FOG AT A DISTANCE AT TIME OF OBSERVATION, BUT NOT AT THE STATION DURING THE PR
41|FOG OR ICE FOG IN PATCHES
42|FOG OR ICE FOG, SKY VISIBLE-HAS BECOME THINNER DURING THE PRECEDING HOUR
43|FOG OR ICE FOG, SKY INVISIBLE-HAS BECOME THINNER DURING THE PRECEDING HOUR
44|FOG OR ICE FOG, SKY VISIBLE-NO APPRECIABLE CHANGE DURING THE PRECEDING HOUR
45|FOG OR ICE FOG, SKY INVISIBLE-NO APPRECIABLE CHANGE DURING THE PRECEDING HOUR
46|FOG OR ICE FOG, SKY VISIBLE-HAS BEGUN OR HAS BECOME THICKER DURING THE PRECEDING HOUR
47|FOG OR ICE FOG, SKY INVISIBLE-HAS BEGUN OR HAS BECOME THICKER DURING THE PRECEDING HOUR
48|FOG, DEPOSITING RIME, SKY VISIBLE
49|FOG, DEPOSITING RIME, SKY INVISIBLE
50|DRIZZLE, NOT FREEZING, INTERMITTENT-SLIGHT AT TIME OF OBSERVATION
51|DRIZZLE, NOT FREEZING, CONTINUOUS-SLIGHT AT TIME OF OBSERVATION
52|DRIZZLE, NOT FREEZING, INTERMITTENT-MODERATE AT TIME OF OBSERVATION
53|DRIZZLE, NOT FREEZING, CONTINUOUS-MODERATE AT TIME OF OBSERVATION
54|DRIZZLE, NOT FREEZING, INTERMITTENT-HEAVY (DENSE) AT TIME OF OBSERVATION
55|DRIZZLE, NOT FREEZING, CONTINUOUS-HEAVY (DENSE) AT TIME OF OBSERVATION
56|DRIZZLE, FREEZING, SLIGHT
57|DRIZZLE, FREEZING, MODERATE OR HEAVY (DENSE)
58|DRIZZLE AND RAIN, SLIGHT
59|DRIZZLE AND RAIN, MODERATE OR HEAVY
60|RAIN, NOT FREEZING, INTERMITTENT-SLIGHT AT TIME OF OBSERVATION
61|RAIN, NOT FREEZING, CONTINUOUS-SLIGHT AT TIME OF OBSERVATION
62|RAIN, NOT FREEZING, INTERMITTENT-MODERATE AT TIME OF OBSERVATION
63|RAIN, NOT FREEZING, CONTINUOUS-MODERATE AT TIME OF OBSERVATION
64|RAIN, NOT FREEZING, INTERMITTENT-HEAVY AT TIME OF OBSERVATION
65|RAIN, NOT FREEZING, CONTINUOUS-HEAVY AT TIME OF OBSERVATION
66|RAIN, FREEZING, SLIGHT
67|RAIN, FREEZING, MODERATE OR HEAVY
68|RAIN OR DRIZZLE AND SNOW, SLIGHT
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69|RAIN OR DRIZZLE AND SNOW, MODERATE OR HEAVY
70|INTERMITTENT FALL OF SNOW FLAKES-SLIGHT AT TIME OF OBSERVATION
71|CONTINUOUS FALL OF SNOW FLAKES-SLIGHT AT TIME OF OBSERVATION
72|INTERMITTENT FALL OF SNOW FLAKES-MODERATE AT TIME OF OBSERVATION
73|CONTINUOUS FALL OF SNOW FLAKES-MODERATE AT TIME OF OBSERVATION
74|INTERMITTENT FALL OF SNOW FLAKES-HEAVY AT TIME OF OBSERVATION
75|CONTINUOUS FALL OF SNOW FLAKES-HEAVY AT TIME OF OBSERVATION
76|ICE PRISMS (WITH OR WIHTOUT FOG)
77|SNOW GRAINS (WITH OF WITHOUT FOG)
78|ISOLATED STARLIKE SNOW CRYSTALS (WITH OR WITHOUT FOG)
79|ICE PELLETS, TYPE (A)
80|RAIN SHOWER(S), SLIGHT
81|RAIN SHOWER(S), MODERATE OR HEAVY
82|RAIN SHOWER(S), VIOLENT
83|SHOWER(S) OF RAIN ANS SNOW MIXED, SLIGHT
84|SHOWER(S) OF RAIN ANS SNOW MIXED, MODERATE OR HEAVY
85|SNOW SHOWER(S), SLIGHT
86|SHOW SHOWER(S), MODERATE OR HEAVY
87|SHOWER(S) OF SNOW PELLETS OR ICE PELLETS, TYPE(B),WITH/WITHOUT RAIN AND SNOW MIXED-SLIGHT
88|SHOWER(S) OF SNOW PELLETS OR ICE PELLETS, TYPE(B), WITH/WITHOUT RAIN OR RAIN AND SNOW MIX
89|SHOWER(S) OF HAIL, WITH OR WITHOUT RAIN OR RAIN AND SNOW MIXED, NOT ASSOC. WITH THUNDER-S
90|SHOWER(S)OF HAIL, WITH/WITHOUT RAIN OR RAIN AND SNOW MIXED, NOT ASSOC. W/THUNDER-MODERATE
91|SLIGHT RAIN AT TIME OF OBSERVATION-THUNDERSTORM DURING THE PRECEDING HOUR BUT NOT AT TIME
92|MODERATE OR HEAVY RAIN AT TIME OF OBSER.-THUNDERSTORM DURING PRECEDING HR. BUT NOT AT TIM
93|SLIGHT SNOW, OR RAIN AND SNOW MIXED OR HAIL AT TIME OF OBSER.-THUNDERSTORM DURING THE PRE
94|MODERATE OR HEAVY SNOW, OR RAIN AND SNOW MIXED OR HAIL AT TIME OF OBSERVATION-THUNDERSTOR
95|THUNDERSTORM, SLIGHT OR MODERATE, WITHOUT HAIL, BUT W/RAIN AND/OR SNOW AT TIME OF OBSERVA
96|THUNDERSTORM, SLIGHT OR MODERATE, WITH HAIL AT TIME OF OBSERVATION-THUNDERSTORM AT TIME O
97|THUNDERSTORM, HEAVY, WITHOUT HAIL, BUT WITH RAIN AND/OR SNOW AT TIME OF OBSER.-THUNDERSTO
98|THUNDERSTORM COMBINED WITH DUSTSTORM OR SANDSTORM AT TIME OF OBSER.-THUNDERSTORM AT TIME
99|THUNDERSTORM, HEAVY, WITH HAIL AT TIME OF OBSERVATION-THUNDERSTORM AT TIME OF OBSERVATION
#
>TABLE|SC_XDIN|Surface code values for srfcCode='XDIN': XBT digitization Interval (NODC-0613
>FIELD|SRFC_Parm WHEN SRFC_Code = 'XDIN'
01|FIXED INTERVAL LE 0.1 METER AND LE 0.1 DEG C
02|FIXED INTERVAL GT 1 METER BUT LE 3 METERS AND LE 0. 1 DEG C
03|FIXED INTERVAL GT 3 METERS BUT LE 6 METERS AND LE 0 .1 DEG C
04|FIXED INTERVAL GT 6 METERS AND LE 0.1 DEG C
11|FIXED INTERVAL LE 1 METER AND LE 0.2 DEG C
12|FIXED INTERVAL GT 1 METER BUT LE 3 METERS AND LE 0. 2 DEG C
13|FIXED INTERVAL GT 3 METERS AND LE 6 METERS AND LE 0.2 DEG
31|VARIABLE INTERVAL - MANUALLY DETERMINED
32|VARIABLE INTERVAL - STATISTICALLY DETERMINED
33|VARIABLE INTERVAL - PHYSICALLY DETERMINED
34|FIXED INTERVAL GT 3 METERS BUT LT 6 METERS AND LE 0.2 DEG C
#
>TABLE|SC_XDMT|Surface code values for srfcCode='XDMT': XBT digitization Method (NODC-0612)
>FIELD|SRFC_Parm WHEN SRFC_Code = 'XDMT'
01|MANUAL
02|A-D CONVERSION FROM ORIGINAL
03|A-D CONVERSION FROM COPIES
04|OPTICAL SCANNING
05|DIRECT DIGITAL OUTPUT UNKNOWN
06|DIRECT DIGITAL OUTPUT BATHY
07|DIRECT DIGITAL OUTPUT SUTRON
08|DIRECT DIGITAL OUTPUT FROM SIPPICAN MARK 9
#
>TABLE|SC_XTRS|Surface code values for srfcCode='XTRS': XBT data Treatment and Storage (NODC
>FIELD|SRFC_Parm WHEN SRFC_Code = 'XTRS'
01|SINGLE DIGITIZATION; STORED AS DIGITIZED
02|SINGLE DIGITIZATION; COMPRESSION; FIT WITHIN 0.05 DEGC
03|SINGLE DIGITIZATION; COMPRESSION; FIT WITHIN 0.1 DEGC
04|SINGLE DIGITIZATION; COMPRESSION; FIT WITHIN 0.2 DEGC
05|SINGLE DIGITIZATION; COMPRESSION; FIT WITHIN 0.3 DEGC
06|SINGLE DIGITIZATION; COMPRESSION; FIT WITHIN 0.7 DEGC
07|UNKNOWN
21|DUAL DIGITIZATION AND AVERAGING; STORED AS DIGITIZE
22|DUAL DIGITIZATION AND AVERAGING; COMPRESSION; FIT WITHIN 0.05 DEG C
23|DUAL DIGITIZATION AND AVERAGING; COMPRESSION; FIT WITHIN 0.1 DEG C
24|DUAL DIGITIZATION AND AVERAGING; COMPRESSION; FIT WITHIN 0.2 DEG C
25|DUAL DIGITIZATION AND AVERAGING; COMPRESSION; FIT WITHIN 0.3 DEG C
26|DUAL DIGITIZATION AND AVERAGING; COMPRESSION; FIT WITHIN 0.5 DEG C
27|DATA POINTS AT FIXED INTERVALS OR SELECTED INTERVALS RETAINED AND STORED
```

```
#
>END|SC_xxxx
#
```